DOCUMENT RESUME

ED 427 158 CE 077 740

AUTHOR	Herrera, Lazaro Moreno
TITLE	Cuban Sloyd. History and Educational Research on Developing Creativity. Four Articles. Publication No. 2. Craft Education in the Cultural Struggle. Part VII.
INSTITUTION	Abo Akademi (Finland).
ISBN	ISBN-952-12-0104-5
ISSN	ISSN-1236-0872
PUB DATE	1997-00-00
NOTE	107p.
AVAILABLE FROM	Department of Teacher Education, Faculty of Education, Abo Akademi, P.O. Box 311, 65101 Vasa, Finland (27 Finnish marks).
PUB TYPE	Reports - Descriptive (141) -- Reports - Research (143)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Affective Behavior; Craft Workers; *Creative Development; Creativity; Educational Development; Educational Environment; *Educational History; Educational Research; Elementary Secondary Education; Foreign Countries; *Handicrafts; *International Educational Exchange; Student Motivation; Teaching Methods
IDENTIFIERS	*Cuba; *Sloyd Education

ABSTRACT

These four articles deal with historical developments of sloyd in Cuba and research on creativity with regard to sloyd education. (Sloyd, derived from a Swedish word, is an umbrella term for making or crafting things by hand.) "The Process of Sloyd Introduction in Cuba: Main Events" describes important events related to its introduction and development in Cuba from 1901-1914. The work of Swedish sloyd teachers in Cuba is emphasized. "Sloyd in Cuban and Latin American Pedagogy" describes the fluid exchange of ideas between Swedish pedagogue Salomon and teachers working in this area. It analyzes conditions that favored assimilation of sloyd by Latin American pedagogy. "Teaching-Organizational Factors in the Development of Creativity through Sloyd Education" presents results from the first year of experimental work with Cuban children that show that a flexible, participatory environment that permits and stimulates children's interests becomes a factor stimulating their creative potentialities. "Affective-Motivational Factors in the Sloyd Lesson: Influence on the Development of Creativity" presents initial results obtained after 3 years' development of a pedagogical experiment with Cuban children aged 9-12. The study of the affective-motivational world of children and its relation to their creative work in the workshop provides valuable outcomes to understand and make effective the teaching and learning process in sloyd education. Letters by Swedish sloyd teachers and Cuban educational authorities are appended. (Individual articles contain figures and tables.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 427 158

Craft Education in the Cultural Struggle
Part VII

Cuban Sloyd
History and educational research on developing creativity
Four articles

Lázaro Moreno Herrera

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
C Göran - Wrestam
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Publications from the Faculty of Education, Åbo Akademi University
No 2 1997

BEST COPY AVAILABLE

Department of Teacher Education

Craft Education in the Cultural Struggle
Part VII

Cuban Sloyd
History and educational research on developing creativity
Four articles

Lázaro Moreno Herrera

Publications from the Faculty of Education, Åbo Akademi University
No 2 1997

The authors assume sole responsibility for the opinions expressed in the series Publications from the Faculty of Education.

1997

Printed on recycled paper
© Faculty of Education, the author

Åbo Akademi University
Faculty of Education
Department of Teacher Education

Publication No. 2 1997

Lázaro Moreno Herrera
Craft Education in the Cultural Struggle. Part VII. Cuban Sloyd.
History and educational research on developing creativity.
Four articles.
99 pp.

Abstract

Today's Cuban sloyd education is closely connected with the historical development of Nordic sloyd, particularly Swedish and Finnish sloyd education. Sloyd became internationally known during the last few decades of 19th century and the figure of Otto Salomon became an international point of reference in relation to practical-aesthetical education. When in 1901 it was decided to introduce craft education as a subject in the Cuban compulsory school, sloyd had already gained a remarkable reputation in international education. It was then decided to introduce it as the method for the teaching of the subject. The meeting between the pedagogical system sloyd and the Cuban context and educational ideal resulted in the birth and development of a qualitatively new subject: the Cuban sloyd. The process of introducing and further developing sloyd in Cuba has indeed been complex. Its implications have even reached today's developments within the subject field. The fostering of children's creative potentialities through sloyd education is a core issue in today's research and development within the subject in the Cuban educational system. Research work has been focused both on creativity from a technological perspective and creativity as part of the complex system of human being processes with regard to sloyd education. The articles in this compilation deal with historical developments of the subject in Cuba and research on creativity done from the second standpoint mentioned above.

Key words: sloyd, sloyd education, Otto Salomon, Cuban sloyd, creativity.

Available from:
Åbo Akademi, Faculty of Education, P.O. Box 311, 65101 Vasa, Finland
Phone: +358-(0)6-3247 111 Fax: +358-(0)6-3247 302

Abo Akademi
Pedagogiska fakulteten
Institutionen för lärarutbildning

Publikation nr 2 1997

Lázaro Moreno Herrera
Slöjdfostran i kulturkampen. Del VII
Kubansk slöjd. Historia och undervisningsforskning om kreativitetsutveckling. Fyra artiklar
80 s., bilaga

Abstrakt

Slöjden i den kubanska skolan är starkt bunden till den historiska utvecklingen av nordisk slöjd, speciellt svensk och finländsk skolslöjd. Slöjden som skolämne blev internationellt känd under slutet av 1800-talet tack vare Otto Salomon. Inom undervisningen i praktisk-estetiska ämnen refererade man allt oftare till hans pedagogiska idéer. Då slöjd infördes som läroämne i de kubanska skolorna år 1901 var slöjden redan mycket känd inom internationell pedagogik. Man beslöt att införa ämnet med speciell tyngdpunkt på undervisningsmetoderna i Salomons s. k. modellslöjd. Mötet mellan detta metodiska system och den kubanska kontexten och dess pedagogiska ideal resulterade i att ett kvalitativt nytt ämne föddes och utvecklades, nämligen kubansk slöjd. Införandet och utvevklandet av den kubanska slöjden har varit en mycket komplex process. Den ursprungliga idén påverkar alltjämt ämnets utveckling. Kreativitetsutveckling genom slöjdundervisning är ett centralt område i dagens forskning och utvecklingsarbete i det kubanska utbildningssystemet. I forskningen har kreativiteten fokuserats dels ur en teknologisk synvinkel, dels med beaktande av kreativitetens andel i komplexa individuella processer i slöjdundervisningen. Artiklarna i denna publikation berör den historiska utvecklingen av ämnet på Kuba samt nämnda kreativitetsforskning.

Sökord: Slöjd, slöjdpedagogik, kubansk slöjd, kreativitet, Otto Salomon

---

Beställningsadress.
Abo Akademi, Pedagogiska fakulteten, PB 311, 65101 Vasa, Finland
Tel: +358-(0)6-3247 111, Fax: +358-(0)6-3247 302

Contents

Figures and tables 7

Preface 9

Introductory remarks 10

Article 1 The process of sloyd introduction in Cuba. Main events 13
Introduction 13
Craft education during the Cuban colonial period 14
The beginning of the process 15
Sloyd in Cuba between 1901 and 1905 17
Sloyd from 1906 to 1914. The role of Aron Heidengren 18
Final considerations 21
References 23

Article 2 Sloyd in Cuban and Latin American pedagogy 24
Introduction 24
August Abrahamsson, Otto Salomon and sloyd 25
Why do we use the word sloyd in Spanish? 26
Latin America and Cuba during the 19th century 27
Introduction of sloyd in Latin America 29
Sloyd and Cuban Pedagogy 35
The sloyd decay in Latin American and Cuba during the present century 38
Is there any sloyd heritage in Cuban and Latin American pedagogy? 40
Final considerations 40
References 42

Article 3 Teaching-organizational factors in the development of creativity through the sloyd lesson 44
Introduction 44
Generalities of the experiment 46
Methods and instruments 48
Remarks on the selection and characterisation of the sample 50
About productions in the sloyd lessons 52
Presentation and discussion of the results 52
Results of sloyd work and creativity 52

The motivational aspect of the problem 59
Final consideration 65
References 66

Article 4 Affective - motivational factors in the sloyd lesson. Influence on the development of creativity 68
Introduction 68
Needs, motives and creative activities in the workshop 69
Affective experiences (feelings, emotions) and volitive activity in the creative work in the workshop 74
Final considerations 77
References 78

Appendix 79

Figures and Tables

Page

Article 1

Figure 1. *Swedish sloyd teachers who worked in Cuban cities at the beginning of the century.* 17

Article 2

Figure 1. *Latin American countries where Swedish sloyd teachers worked at the end of last century and the beginning of the present one.* 30

Table I. *Swedish sloyd teachers who worked in Latin America (after Thorbjörnsson, 1990, pp. 258-259).* 31

Article 3

Figure 1. *Variation of the diversity of articles produced by children from the experimental (grey background) and control (white background) groups during the development of the experiment. Task: making the attendance control.* 53

Figure 2. *Variety of open-works in paper made by children from the experimental (grey background) and control (white background) groups. To the left types of different open-work in paper, to the right unique models.* 54

Figure 3. *Variation in the number of designs and details per design in making the attendance control in the experimental group.* 54

Figure 4. *Influence of the type of material on the variety of articles produced in the experimental group.* 55

Figure 5. *Variation in the drawbacks of children during the experimental work. The unity of work with various materials was divided into two sections due to organisational reasons. The curves have an accumulative character. Solid line – accidental drawbacks; dotted line - drawbacks produced by variation of ideas.* 56

Figure 6. *Attitude of children from the experimental and control groups towards the subject sloyd at the beginning (left) of the experiment and after thirty weeks (right). The outcomes were obtained from an inquiry about the preference for the subject and a composition.* 59

Figure 7. *Sociogram of the experimental group after 30 weeks of work.* 63

Figure 8. *Sociogram of the control group after 30 weeks of work.* 64

Table I. *Psychopedagogic characteristics of the investigated groups at the beginning of the experiment (Week 1).* 51

Table II. *Correlation of indicators between the results of experts' criteria and the application of the Guilford test with respect to creative qualities of the experimental group.* 58

Table III. *Predominant motivations in children from the experimental group in relation to the sloyd subject. Outcomes of a composition entitled "The sloyd subject". Week 38 of the experiment.* 60

Table IV. *Predominant motives in children from the experimental group in relation to sloyd. Outcomes of a composition entitled "The sloyd subject". First week of the experiment* 61

Article 4

Figure 1. *Relation between the material needs of children and their productions in the sloyd lessons under different methodological variants. The percentage of articles corresponding to the needs stated by children in a survey applied at the beginning of the work with each variant was considered.* 70

Figure 2. *Variety of articles produced by children in the different methodological variants.* 72

Figure 3. *Description of predominant motives during children's work in the sloyd lesson. With white background - social motives, with gray background - personal motives.* 72

Table I. *Productions of children showing important differences in gender.* 71

Table II. *The faces of volitive activity.* 75

Preface

The idea of presenting some of my previous articles in a small compilation was suggested by my supervisor as Ph. D. student at the Faculty of Education, Åbo Akademi University, Ass. Prof. Linnéa Lindfors, Ph. D. I am deeply grateful for all the support she is giving to carry on my research work.

During the last eight years I have systematically carried out research in the areas of the history of education, comparative education and didactics within the field of sloyd education. Along with this work I have received an extremely valuable support, in many different ways, from colleagues in Sweden, Denmark, Finland and from my colleagues at the Department of Craft and Design at the Pedagogical University of Pinar del Río, Cuba. To all of them I express my deep gratitude and grateful acknowledgement. I am particularly indebt to my Cuban supervisor Ph. D. Victor Roberto Ferro Fernández. His direct participation during the research work, as well as his criticism and suggestions have been of the greatest value. Our discussion and joint analysis of the research data have indeed contributed to increasing the accuracy and reliability of the study. My colleague Mia Porko at the Faculty of Education, Åbo Akademy University, has given me a considerable help with translations that are of the most value for the further development of the research. To her and all the colleges at the Faculty of Education goes also my special acknowledgement. Rolf Lindholm has checked the text and indeed contributed to the improvement of my English.

The historical relation between Cuban and Latin American sloyd and Swedish sloyd was "re-established" after 1990, thanks to the contribution of Emeritus Doctor Hans Thorbjörnsson and Senior Lecturer Harry Arvidsson, former Head of the Department of Craft and Design at Linköping University. Without their positive attitude an enthusiastic support with regard to my first letter asking for information on sloyd education, this work would possibly never have been done. At the present time the relation between Nordic sloyd and its Cuban counterpart has developed considerably. The international symposiums in sloyd education held in Cuba every second year, since November 1994, and the courses arranged during the last four years have indeed contributed to this development.

Introductory remarks

The four articles in this compilation are part of the result of my research work during the last seven years[1]. They have been presented over the past four years at different international conferences held in Cuba and as material for lectures during my study visits and guest lecturing period at the Department of Craft and Design at Linköping University. The main aims of this compilation are (a) to provide scholars and students in the subject field with an initial survey of overlook on history of Cuban and Latin American sloyd education, and (b) to present one of the new trends in research on creativity in today's Cuban sloyd education. The inclusion of this compilation as a seventh part of the serie *Craft education in the cultural struggle*, been published by Åbo Akademi University in Vasa, implies also a full compromise of the author with the socio-cultural dimension of sloyd education in present times.

The articles here presented could also to a certain extent be attractive for those interested in the history of education and "curiosities": Swedish in Latin America at the turn of the century, Otto Salomon: a successful Ambassador of Swedish culture. They could also be headlines to use when presenting this historical process. In fact a lot of surprising events arose along with the development of our historical research work. The compilation also includes a translation of some of the letters sent to Salomon from Cuba by Swedish sloyd teachers and Cuban educational authorities at the very beginning of the century, which are for the first time published.

At the very beginning of my studies an important question appeared: *How was it possible that these Swedish teachers were able to successfully fit into Cuba's socio - cultural environment?* In order to answer this question a long research process has been needed both in Cuba and in Sweden. In the particular case of Cuba and Latin America, the findings of the Swedish sloyd historian Hans Thorbjornsson have been complemented with our research in Cuban archives. There are still areas to clear out, the experiences from the process of sloyd introduction in that geographic area are indeed of value to educational development in the present context.

Two initial considerations in relation to the above question can be mentioned:

- The birth of Swedish sloyd differs to a great extent from other historically well known sloyd teaching systems e.g. the Russian, German, and French ones. In these countries sloyd teaching at

[1] They have been produced in 1992 (article 1), 1994 (articles 2 and 3) and 1996 (article 4).

school was, since an early stage, basically focused, on the preparation of children for the increasing industrial development taking place. Swedish sloyd, on the contrary, aimed at personal development, fostering of cultural identity, and educating good citizens, rather than at vocational training.

- Sloyd teachers who worked in Cuba and Latin America never imposed their sloyd. They successfully, in a flexible way, adapted the Swedish sloyd system to the new socio-cultural conditions. To make a wooden spoon in Cuba could provoke at least three main comments: *something is "going wrong" with your brain, you are so extremely poor that you cannot manage to buy one in the shop, or you are so lazy that you are using your time for useless things*. Series of models made by Swedish teachers to work with Cuban children shows that since the very beginning they grasped the reality around them. Traditional wood-carved Swedish articles were absolutely avoided.

Articles 1 and 2 present some of the main facts in relation to the history of sloyd teaching both in Cuba and Latin America. It is not the aim at this stage to deepen the analysis of the historical process of sloyd introduction in Cuba and Latin America, though obviously important consideration is taken in this respect. The aim of these two articles was to describe some of the main events related to this process. As both articles were produced in different periods and for different purposes the reader will find information already presented in article 1 while reading about the relationship between sloyd and Cuban pedagogy in article 2.

Articles 3 and 4 present some of the initial outcomes of our research work in relation to development of children's creative potentialities through sloyd education. The articles were written during the first stage of development of the interventive experience. Considerable improvements and redefinitions were, in different ways, afterwards made. In this research a personological approach to creativity was followed. It considers creativity as an expression of the unity of the cognitive and the affective in the personality (according to Mitjans 1995).

Why the interest in creativity? In a first stage of the development, after the triumph of the revolution in 1959, Cuban educational system was mainly focused on what we could consider as quantitative aspects, i.e. the illiteracy campaign (1961), building of new schools for all levels and types of education, training of the required number of teachers. Nowadays there is a common agreement that quality must be the main goal of improving the educational

system. In this context research on creativity and what is called active methods of teaching and learning are given important priority.

In Cuban sloyd education, or *Educación Laboral* as the subject is named both at the compulsory school level, in teacher training and in educational research, it is easy to see two main approaches when dealing with the problem of creativity and the development of the subject as a whole:

- The technologically orientated line, basically focused on the link of the subject with the industry and the technological world. It puts emphasis on technical know-how, technical creativity, technological thinking, practical skills, etc. Within this frame important research work has been done in the field of technical creativity and the technical thought of children. Teachers with technical background mostly follow this approach.
- The line oriented to the personality of children. This group approaches the subject development considering its role in the education of children as individual members of the society who grows in a particular socio- cultural environment. Therefore it assumes a holistic perspective where technical knowledge - as an aim in itself - has a secondary role. Its main supporters can be found in teachers with a pedagogic background.

Nowadays there is an increasing tendency towards the second line or a balance between both of them. Even when we are at an early stage in Cuban sloyd education it is possible to see a development towards the humanistic area rather than the technological one, without discarding the importance of technical knowledge and practical skills, the question is to find a balance between these two aspects.

Article 1 The process of sloyd introduction in Cuba. Main events

Abstract

The process of sloyd[1] introduction in Cuba at the beginning of this century is an interesting and quite complex issue to deal with. What made possible the assimilation of a system coming from a society in the early stages of industrialization to another which had just abolished slavery? Why were Swedish sloyd teachers very favourably received by the Cubans even though most of them were afraid of the negative influence of foreign teachers on their cultural identity?

To answer the above mentioned questions it is necessary to know -as a starting point- the main facts of this process. The article present a description of some of the most important events related to the introduction of sloyd and its development in Cuba during the first fourteen years of this century. The work of Swedish sloyd teachers in Cuba is especially emphasized.

Key words: sloyd, history, Cuban sloyd, syllabus, Swedish teachers

Introduction

The school subject sloyd is a result of the work of the Swedish pedagogue Otto Salomon in the second half of 19th century. Salomon was capable of successfully summarising the ideas of the classic educationists before him, e.g. Pestalozzi, Comenius and Cygnaeus, transforming them into a qualitatively new system of sloyd teaching considered the most important of its time. Due to its pedagogical and educative values and Salomon's own efforts sloyd became internationally well-known and was introduced in countries with very different characteristics, e.g. the U.S.A., Argentina, Japan, South Africa (Thorbjörnsson, 1990).

At the beginning of this century, in 1901, sloyd was introduced as school subject in Cuba (Moreno & Mejías, 1990) by the authorities of the U.S.A. Military Occupation Government as part of a general reform of the Cuban educational system.

[1] Sloyd included at that time wood and metal work. The concept textile sloyd is more recent in this subject field

This fact is recorded in the pedagogical and historical Cuban literature (Guerra, 1954). There are still available an important collection of didactic materials and documents gathered by the firsts sloyd teachers in Cuba concerning the teaching of this subject in the school (Heidengren, 1906). There is also available a series of methodological and administrative documents which deal with the introduction of this system in Cuba.

Craft education during the Cuban colonial period

Before 1900 there did not existed in Cuba a craft education based on pedagogical aims. The embroidery work in girls' education and the notions of agriculture and trade according to the locality for boys was the closest to this kind of teaching. Even though at the so-called "Escuelas de Amigas" (schools of friends), dedicated to the education of children from the lower classes of society, some kinds of craft activities were taught. There were also schools of arts, vocational schools, charity houses and religious institutions in which different kinds of craft were taught with utilitarian aims.

There was an important tradition of craft activities in Cuba but they never became part of a school subject. The knowledge about craft was mainly transmitted through family members. The study plans stated by order of the Royal Spanish Crown in 1842 and 1863 did not make any contribution to sloyd education; in fact this subject was very poor developed in Spain compared to other European countries.

The ideas and concepts about practical education expressed by the most outstanding Cuban philosophers and educationists during this period have very important historical significance. The priest Felix Varela, considered the father of Cuban philosophy, pointed out the need of practical and experimental education in Cuban schools and the importance of considering children's needs in their education: *"Let's talk in the language of children and they will understand us"* (Moreno & Mejías, 1990). The Cuban national hero, José Martí, one of the most outstanding Latin American writers and educationist of the 19th century, stated: *"Physical, mental and moral advantages come out of the manual work"* and he added *"The man grows with the work he makes with his own hands"* (Martí, 1990). His pedagogical ideas became the main basis of the modern Cuban educational system.

The beginning of the process

In 1898 U.S.A. military troops occupied Cuba at the end of the Cuban war of independence against Spain. By decree of the military occupation government a reorganisation of the Cuban educational system began. Lieutenant Mathew E. Hanna was appointed as supervisor of public schools. He made the first attempts to organise the sloyd teaching in Cuban schools. The North American teacher L.L. Summers, who was named supervisor of manual teaching, assisted him in this work. Summers had graduated from Pratt Institute in New York and was also student at the summer courses held at Nääs by Otto Salomon.

In 1900, sloyd was added to the mentioned traditional manual work activities in Cuban schools; examples of sloyd articles made in a school in Havana were presented in an exhibition at Buffalo, U.S.A., from July 23 to August 31, 1900. On May 20, 1901, the Superintendents Junction[1] approved the first curriculum for public schools, a fact of special significance for sloyd teaching in Cuba. Sloyd teaching was established from first to sixth grades having on the average 45 minutes daily on this subject.

In the summer of 1900 a group of 40 Cuban teachers participated in the sloyd courses given by the Swedish sloyd teacher Gustav Larsson at the teacher training college in Boston. However, the number of teachers qualified to teach this subject was not enough. This situation made the supervisor of public schools, Mathew E. Hanna, to invite North American teachers and teachers from other countries to come and work in Cuban schools. Priority was given to invitations to Swedish teachers due to their well-known experience of the subject.

From the very beginning some of these foreign teachers had great success in the schools where they worked. An example of this is recorded in the report of January 5th, 1903, written by the superintendent of public instruction of Havana about his visit to the sloyd workshop where the Swedish teacher Aron Heidengren successfully worked since the school year 1901-1902 in co-operation with two Cuban teachers. Just after two month work in Cuba Heidengren modified the serie of sloyd models he brought from Sweden and applied one of his own creation adapted to the characteristics and needs of the Cuban children. The report also describes the enthusiasm of children for the new subject.

In his report about sloyd teaching in Cuba (1902) the above mentioned supervisor of public instruction, M. E. Hanna, argued the conditions which

[1] Equivalent to the National Board of Education

favoured the introduction of manual work activities in Cuban schools. He stated that characteristics of Cuban children - physically very active - were a factor in its favour and that experiences of Sweden and U.S.A. could be of great use here. He also pointed out the underestimation of manual work existing in a certain part of Cuban society and the lack in this country of the self-made-man of other countries e.g. U.S.A *"persons that through their own efforts had obtained honour and fame"* (First Annual Report, 1901-02). From his point of view this situation could be satisfactorily solved with the teaching of manual work at school.

Even though the ideology underlying the above quotation could be subject to discussion, it is true that manual work at that time was considered an activity for blacks and poor people. Therefore the introduction of sloyd became a complex task not only due to material shortages but also because of the social concepts about practical work.

The role given by Hanna to sloyd teachers as *"defenders"* of the very best human values was very important. When he adapted the sloyd system as the most proper for craft education in Cuban schools, he underlined that the child is more interested in the work because he knows he will produce a useful article to take home made by his own efforts.

Important considerations in relation to sloyd introduction in this period could also be found in the reports written by Summers. When arguing the need of introducing sloyd in Cuba he emphasised its great educative importance, confirmed in Sweden and U.S.A. because this system "dealt with mental and physical education at the same time". Concerning its practical introduction in the school schedule, he stated that in every city where sloyd was established there must be courses on Saturdays and even at night to teachers of all the other subjects to familiarise them with this new subject. Besides, he suggested that class teachers should be employed as auxiliaries during sloyd lessons. This would permit an adequate training of teachers in this subject and make it easier to choose the most capable ones who would later go to the U.S.A. or Sweden to undertake special studies in sloyd.

Many of the aspects stated by Summers could not be accomplished because the lack of the necessary material support however, all his work gave a great impulse to the development of sloyd in Cuba.

Sloyd in Cuba between 1901 and 1905

During this period the Swedish sloyd teachers who worked in Cuba arrived. Figure 1 shows their names, places of work and eventual period of stay*, according to the research done by Swedish sloyd historian Hans Thorbjornsson (1990), confirmed by findings in Cuban archives.

There are materials that testify their successful work in Cuban schools. Letters they wrote from Cuba to Salomon are kept in Gothenburg archives. These letters describe in an amazing and accurate way the socio-economic situation of Cuba at the beginning of the century and the Cuban culture. Besides, they give detailed information of the work and the situation of sloyd teaching in Cuba. These letters are one of the most important sources to study and to understand the process of sloyd introduction in Cuba.

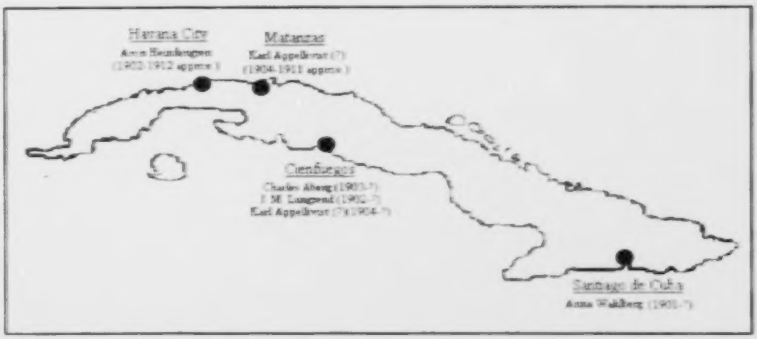

Figure 1. *Swedish sloyd teachers who worked in Cuban cities at the beginning of the century.*

During this period Heidengren in his position as head of the department of sloyd at the Luz y Caballero School did a remarkable job of advertising sloyd, becoming the closest collaborator of Summers. The important articles he published indeed contributed to increasing the knowledge concerning the subject sloyd in the Cuban schools. Among the most significant ones the following could be mentioned:

* What happened to them after the period mentioned in this work is unclear and still needs more research work. Heidengren was eventually married to a Cuban, it seems that the others went back to the U.S.A. and Sweden.

BEST COPY AVAILABLE

-*El Sloyd pedagógico* (pedagogical sloyd), December 1902.
-*El "Sloyd" o Trabajo Manual en las escuelas públicas* ("Sloyd" or manual work in the public schools), October 1904.
-*Sine labore nihil* (Without work nothing), August 1905.
-*El "Sloyd" en carton para las niñas* ("Sloyd" in cardboard for girls), September 1905.

From May to November 30, 1904, during the international exhibition in San Luis, U.S.A., the sloyd work made by Cuban children had a great success in the schools stand. The models made by pupils of Heidengren and Charles Åberg were exhibited.

The above mentioned syllabus of 1901 was complemented in 1903 with an official regulation of the Superintendent Junction recommending the introduction of sloyd in the schools where it was still not taught. The reports from school inspectors of the provinces offer a detailed panorama of the situation of sloyd teaching, of the success and difficulties that it was facing in the Cuban schools in this period.

In 1904 sloyd was, temporarily excluded from the school schedules due to the lack of specialised teachers, although it was established that already trained teachers could be authorised to include sloyd in the timetables. There was a strong reaction against this law. On February 25, 1905 sloyd was re-established as a school subject with a new syllabus. In this way the continuation of the sloyd development was assured.

Sloyd from 1906 to 1914. The role of Aron Heidengren

In 1906Aron Heidengren published the *Manual de Sloyd Cubano* (Manual of Cuban Sloyd), the first book about sloyd education written in Cuba. Its preface written by Enrique José Varona, the most important Cuban pedagogue of this century, summed up the best values of sloyd and its positive influence on the education of Cuban children. He stated: *"A good sloyd lesson results in a marvellous field of education, and of complete education. It is going to stimulate the intelligence through the muscles and senses"*. Then he affirmed *"To the thought by the action; it could be the emblem for the sloyd teachers and I do not know of anything else which answers better to the total aim of the art of education"* and he finished: *"the success of its teaching will be a positive benefit for the generations that we are trying to prepare, in better conditions, for them to live in our beloved motherland a more comprehensive and noble life than their predecessors"* (Varona, 1906). Varona was one of the main supporters of

the introduction of sloyd in Cuban schools. This book also included a serie of sloyd models designed by Heidengren named the *Cuban serie of models*.

During this period Aron Heidengren became sloyd supervisor for the whole country. Since 1906 his activities in the development of sloyd in Cuba became more relevant. As a result of his influence different Cuban educators published during this period important articles about sloyd, explaining the benefits of its teaching for children's education. In one of these articles entitled *Why sloyd must be taught*, published on September 1908, sloyd teaching is argued for beginning with the analysis of the work of Charles H. Man *Mind and Hand* and the researches of Huglings, Jackson and Ferrier about the role of manual work in the psychological development of children. This article is important evidence that sloyd was assumed in Cuba with an emphasis on its contribution towards development of children personality rather than as a way of vocational training. Heidengren underlined that Cuban children need particularly sloyd due to their vivacity. From his point of view sloyd work will help to guide their energies towards a practical and moral aim at the same time. In another article entitled *Who may teach manual work to the girls* it is advocated that specialised teachers should develop this subject at the schools for girls. At that time sloyd was taught in separate classrooms for boys and girls.

In 1909, the Cuban secretary of public instruction Ramón Mesa travelled to the U.S.A. and visited the schools of manual training in different states. At that time there was still a strong influence of Swedish sloyd in sloyd teaching in the U.S.A. He acquired a detailed knowledge of sloyd evolution in Sweden. After his experiences of this study visit he wrote the article *Sloyd in Sweden*, reflecting upon the development of its teaching in Sweden. His visit very positively influenced the development of sloyd in Cuba during these years. In support to his article, the supervisor of sloyd in the province of Camagüey, Mercedes Xiques, wrote the article *My grain of sand*. This teacher was the first and only Cuban female teacher who, in 1909, obtained the diploma of sloyd teacher at Nääs Seminarium[*]. Her article emphasised the human values existing at Nääs and its environment "almost heavenly". The nice human environment of Nääs is also described with special reference to the role of the principal, Franz Von Schule, and the staff members Olga Carlsson and August Johansson in the development of such conditions. She concludes by expressing the great need for Cuba to follow the example of Sweden on this subject.

In this period a group of four Cuban teachers studied at the Sloyd Seminarium in Nääs during the summer courses given by Salomon.

[*] In Cuban archives there is information recorded about this fact, however so far no references has been found by the author in Swedish archives.

At the beginning of the school year 1909-1910, on September 30, 1909, the general supervisor of sloyd Aron Heidengren wrote an official document valid for the whole country. The positive evolution of this subject in Cuba is mentioned and also the rules that might guide the work of the sloyd teachers are established. Furthermore, he stated a relation of tools and materials needed in a sloyd workshop to develop the activities during one school year. This document permitted the standardisation of sloyd workshops all over the country.

During these years there was a big gap between the methodological and didactic development of sloyd and its practical situation in the schools. Sloyd was taught only in the main schools of the biggest cities of the country so its benefits never reached the majority of Cuban children.

To awaken the interest of Cuban teachers in sloyd, Heidengren organised an important contest in 1909 which was made public in a magazine of Havana. The question issued was: *Is it necessary to teach sloyd to the girls and boys at schools? Argue why*. In a big party celebrated on July 5 of that year, at Havana's Ateneo, the rewards of this event were given. The winner works were well-developed arguments about the necessity of sloyd teaching at school. Some of them included detailed reference to sloyd evolution in Sweden and in other countries.

In the summer of 1910 Heidengren visited public schools and teacher training colleges in New York, Boston and Chicago in order to obtain information about the development of sloyd education in the U.S.A. The comprehensive report he wrote after his visit reflected the most important characteristics of sloyd education in the United States and presented important considerations for the development of this subject in Cuba.

Among the most outstanding examples of the development reached by sloyd in Cuba during these years are the products presented by the public schools in the national exhibition held since February 13 to March 15, 1911, in Havana. Heidengren was a member of the organiser commission of that event. The official series of sloyd models and the changes to it made by teachers from different cities of the country, including the Swedish teachers Charles Åberg, K. Appelkvist and A. Heidengren himself, were presented. In the exhibition of books was included the above mentioned *Manual de Sloyd Cubano*. The good quality of the sloyd products exhibited was recognised by Heidengren and mentioned in the newspapers.

As a concluding fact of this stage, on September 8, 1914, a new curriculum for the compulsory school was put into practice. Sloyd teaching for boys from the 3rd to the 8th grade was established, including a new serie of sloyd models.

At the same time the first syllabus for technical drawing started in the schools, a fact which might be considered a historical background to present times teaching of basic drawing as an area within sloyd subject in Cuban schools. This began a new stage in the development of sloyd education in Cuba.

Final considerations

With the arrival of a new system, of new ideas to an environment which differs of the one in which they were originated, a process of reciprocal influences take place between what already exists in the country, *the Cuban educational system according to Spanish culture and the advanced Cuban pedagogical ideal*, and the new arrival, *Swedish sloyd*, giving rise to a qualitatively new product which is the one that stays and acquires its own features, *Cuban sloyd*.

Craft education in Cuban schools before the introduction of sloyd was extremely limited, almost non-existent from the pedagogical point of view. There was a social prejudice towards this kind of teaching in the schools, which showed great underestimation of manual work considering it to be an activity for slaves and artisans.

The sloyd born in Sweden, a country in the primary stages of its industrial development, expanded quickly all over the world due to the necessity of the school to prepare a more integral human being for the modern life which was just beginning. In Cuba this system had to face a social consciousness proper of the slave system that had just ended. Then arises an interesting problem: *How could sloyd bridge the contradiction between its modern character and the reality of the Cuban school and society?* A complete answer to this question would need a deep analysis of the matter, but three main premises should always be considered when clarifying why sloyd won a place in Cuban pedagogy:

1. The pedagogical Cuban ideals were very advanced, teachers belonged to the most progressive sectors of society. The work of Cuban's most outstanding educationist (Varela, Martí, Varona) was characterised as being in favour of a practical and experimental education.

2. The very important educational values of the sloyd system and its well-founded aims and methods to reach a complete education of the children, which made easy its assimilation by the Cuban teachers.

3. The Swedish sloyd teachers who worked in Cuba adapted the sloyd to Cuban conditions and encouraged Cuban teachers to create their own sloyd.

References

Alfonso, J.D. (1929). *Trabajo Manual*. La Habana.

First annual report, (1901-02). Commissioner of Public Schools together with the annual report of the Provincial Superintendents and others. Volume I and II.

Guerra, R. (1954). *Fundación del Sistema de Escuelas Públicas de Cuba, 1901-1902. Biblioteca Cubana de Educación Tomo II*. La Habana: Editorial Lex.

Heidengren, A. (1906). *Manual de Sloyd Cubano*. La Habana: Imp. y Lib. "La Moderna Poesía".

Martí, J. (1990). *Ideario Pedagógico*. Ciudad de La Habana: Editorial Pueblo y Educación.

Moreno, L. & Mejías, R. (1990). *La Enseñanza del Trabajo Manual en la escuela cubana Pre-revolucionaria. Apuntes para su historia*. Pinar del Río: Instituto Superior Pedagógico de Pinar del Río.

Thorbjörsson, H. (1990). *Nääs och Otto Salomon. Slöjden och leken*. Helsingborg: Oldbildarna.

Varona, E. J. in Heidengren, A. (1906). *Manual de Sloyd Cubano*. La Habana: Imp. y Lib. "La Moderna Poesía".

Article 2. Sloyd in Cuban and Latin American pedagogy

Abstract

Sloyd arrived in Latin America at the end of 19th century. The subject was introduced in a group of countries which showed an increasing socio - economic development. There was a fluid exchange of ideas between the Swedish pedagogue Otto Salomon and teachers working in this area. The article presents the main facts of this process. The conditions which favoured the assimilation of sloyd by Latin American pedagogy are also analyzed.

Nowadays when exchanges within the sloyd education field in Latin America shows an increasing tendency, it is to a great extent important to know the roots of present developments. Considerations about the use of the word sloyd in the Spanish language, the existence of a sloyd heritage in Latin America and reasons for its decay at the beginning of this century are also presented.

Key words: sloyd, Latin America, socio-economic conditions, decay, heritage.

Initial considerations

The introduction of sloyd in Cuban and Latin American pedagogy at the end of the 19th century (1889 onwards) is a process of very peculiar characteristics. Its study becomes difficult as it differs from the phenomenology of the arrival of other pedagogic trends in Latin America.

The studies made to sort out the richness and singularity of this process are still insufficient. There is some valuable original information in Swedish and Latin American archives which requires to be studied and processed with an optic that overcomes the historiographic frame permitting its revaluation in accordance with today's circumstances.The process of the internationalisation of sloyd has been conveniently studied by different authors (see e.g. Endo, 1987; Thorbjörnsson, 1990; Reincke, 1995). Summarizing the bibliography about it three main elements that make possible this process can be pointed out:

- The demands on the educational systems of the epoch to prepare an individual capable of participating actively in the growing industrial development that was taking place.

- The increasing consciousness of the necessity to surpass an intellectualistic education, fomenting an integral development of the individual's potentialities.
- The solidity of sloyd, confirmed by its effectiveness in the pedagogical practice, as a teaching system which provides objective methods and procedures to satisfy the former needs

The previous regularities are applicable to the process of introduction of sloyd in Cuban and Latin American pedagogy.

August Abrahamsson, Otto Salomon and sloyd

August Abrahamsson (1817-1898) is an outstanding figure and a key factor in the birth and development of Swedish sloyd. Having a Jewish background and a low social position, he became a rich trader with important international contacts and influential relations in governmental Swedish spheres (Thorbjornsson, 1992; Hughes, 1993). These two aspects facilitated to a great extent all the pedagogical work of his nephew Otto Salomon (1849-1907). He was a self-taught pedagogue who through the study of the classics (e.g. Comenius, Pestalozzi, Froebel) and direct contacts with the father of Finnish compulsory education, Uno Cygnaeus, was able to create a well-founded didactic system for craft education at the compulsory school.

A manor near Gothenburg city, Nääs, bought by Abrahamsson in 1868, turned out to be the centre for the development of sloyd education since 1872 when Salomon and Abrahamsson started a sloyd school for boys. This event was followed by the opening in the same place of a sloyd school for girls in 1874 and the Sloyd Seminarium in 1875, an institution which since 1880 became a centre of international expanding of sloyd education.

Although it is not the purpose in this article to analyse the origin of sloyd, it is quite important to state some of the facts which conditioned its appearance, and from the author's point of view contribute to explaining its assimilation by Cuban and Latin American pedagogy.

The second half of the 19th century brought about the great impact of industrialization in Sweden. It was this development that was mainly responsible for most of the social problems of the country during that period. The population in cities increased continuously because of the demand for workers in the industry; at the same time an important migratory wave to the U.S.A. took place.

The old Swedish traditions of home sloyd began to languish before the industrial development. The purchase of manufactured house implements replaced their domestic construction; social problems like alcoholism and criminality showed a remarkable increase (Bennett, 1937).

This situation was a serious worry not only for governmental authorities but also for some important social sectors (Porcel y Riera, 1882). Some philanthropic actions started with the aim of rescuing the old traditions and developing ethic and aesthetic values in the individuals.

In this environment grows what was named pedagogical sloyd[6], as a subject with educative aims. From the very beginning, sloyd subordinated the simple acquisition of technical skills to the integral education of the individual; in respect to this, Salomon pointed out: *"... The pedagogical element is in no way in learning as such, but in the development achieved by the students during and by means of the learning process..."* (Thorbjörnsson, 1989). The emphasis on educative value rather than utilitarian, the insistence on the formation of ethic and aesthetic values over and above the vocational training is an element of primary importance to the understanding of the reason for the international spreading of sloyd and particularly its early assimilation by the pedagogy of this geographical area.

Why do we use the word sloyd in Spanish?

In a speech at the conference of the National Union of English Teachers, held in April 8, 1890, when manifesting his opposition to the term Manual Training used in England to designate sloyd, Salomon recognised the logical distinction that should be made between an idea and the term by means of which that idea is expressed, but he underlines that *an obscure and inaccurate expression could easily guide our thought in a direction opposite to the one intended* (Salomon, 1890).

To translate the word sloyd into Spanish, if it would be possible, demands to some extent the use of a long expression. Even so the result could be far away from its content in the Swedish language.

Since 1892 this limitation was mentioned in the following terms by the Chilean pedagogue Joaquín Cabezas who translated into Spanish one of Salomon's most important works:

[6] About the content of the subject, see footnote p. 13.

> *The term "sloyd" will seem to be somewhat weird to our readers, we have adopted it, because in Spanish there is not any equivalent expression to the real meaning of the Swedish word. Hand work, manual work, small industry, domestic industry, etc. do not involve the meaning of a work exercised in school as a pure educative mean* (Cabezas, 1893).-

Since last century the pedagogic literature admitted this term in e.g. English, French, Italian, Spanish.

In the speech mentioned Salomon accurately clears up the particular meaning of the word sloyd. He states that the terms used in languages such as English, French and German, strictly speaking, mean *only a method of instruction directed towards the training of the hand, a method that has as its objective to give the hand certain skills of some importance*. The term sloyd, states Salomon, although it refers to the work with the hand, at the same time guides the thought to the idea that this work is, in no way, done mechanically without conscious thinking; on the contrary, it is something that to be done correctly requires the training of several of the powers and capacities of man. In this way there is here something more than mere manual work; *it is at the same time mental and moral work* (Salomon, 1890).

To Latin America and Cuba the term sloyd arrived and, although in late stages the term manual work was used in a wider sense which included sloyd and other manual activities; it was for decades in common use among teachers and students. In the revolutionary period in Cuba (1959 onwards) the term Educación Laboral has been used, which is somewhat related to Salomon's criteria when recognising education as a wider category compared to instruction and teaching, directed the former to the integral development of personality.

Latin America and Cuba during the 19th century

The first half of the 19th century is marked in Latin America by the struggles for independence and the process of formation of nations. Independence allowed, especially in the central and southern part of the continent, the emergence of a merchant bourgeoisie with liberal and progressive ideas, strongly influenced by the most advanced European ideological trends of that time. This new social class sought for a development capable of adapting the different regions of the continent to the new expansion of international trade (Furtado, 1980). During the second quarter of the 19th century strong civil wars took place. These wars had their origin in the deep contradictions existing between the more conservative sectors of society (landowners and ecclesiastics) and liberal groups

formed by the merchant bourgeoisie already described. Even though the conservative groups generally had the political power, the liberal groups increasingly recovered their economic leadership.

With the triumph of the movement directed by liberal sectors, in the middle of the century the process known as "liberal reforms" started. Such reforms were generally carried out following the patterns established by the English industrial bourgeoisie. It is convenient to remark that until almost the end of the century, the English economic penetration had a major bearing in Latin America, only second to the U.S.A. influence in the last decade of the century.

The process of liberal reforms was complex and contradictory on occasions; however its progressive character is generally recognised. The liberal laws covered a wide spectrum of the life of Latin American countries in the judicial, political and social spheres. They have as their main objective to eliminate the obstacles for the capitalist development of the region (Furtado, 1980).

This process acquires peculiar features depending on the opposition forces in the different countries. It has an important influence on the modernisation of the production techniques, transport and communication, and the realisation of important transformations in social sectors including education. The governmental circles understood the need of organising educational systems that would back up this process of development.

In Cuba the most significant regularities of the 19th century differ in a certain way from the ones manifested in the rest of the continent. An essential reason is that Cuba was the last country to obtain independence from Spain (1898). The loss of South American colonies made the Spanish crown strengthen in all ways its strong control of the island. Every attempt at reforms in the economic, political or social sectors, even the most conservative ones, were systematically stopped by the colonial authorities; an important part of the most advanced and progressive Cuban thinkers of the epoch were forced to migrate due to the repressive policy of the colonial government.

The political, economic and social interests of the most important sectors of Cuban society were ignored. In 1868 the contradictions between Spain and its Cuban colony reached its highest level; this year the war of independence began. After almost thirty years when Spain had no forces to continue the war, in 1898 the US military intervention took place. A military occupational government was stablished. After the war the country showed a devastated economic and social panorama.

Introduction of sloyd in Latin America

As has been previously stated most of the information about the process of introducing sloyd in Latin America still waits to be analysed. Next we describe some of the most significative characteristics of sloyd development in countries with more remarkable economic and social development during the period 1880-1900.

The arrival of sloyd in Latin America since 1889 on is conditioned by an important economic growth in most of the countries of the region. The economic welfare brought about an important social development that influenced the transformation of the educational systems.

Since 1878, August Abrahamsson and Otto Salomon worked to make sloyd internationally known, they sent series of models to different countries and participated with models and drawings in different international exhibitions, e.g. Philadelphia 1876, Paris 1878 and Chicago 1893 (Thorbjörnsson, 1992). With the support of international contacts, e.g. Swedish embassies, colleagues and friends, educational officials and teachers from very different countries were invited to visit Nääs.

In 1885 Claudio Matte visited Nääs, sent by the Chilean government. He is eventually the first Latin American representative who visited the Sloyd Seminarium. There was an increasing interest in sloyd and during 1890 and 1891 delegations from Argentina, Uruguay and Brazil visited Nääs.

The well-known pedagogues Joaquín Cabezas from Chile, Pablo Pizzurno from Argentina, and José H. Figueira from Uruguay, had an intensive correspondence with Otto Salomon. They translated into Spanish an important amount of information about sloyd and persuaded the authorities in their countries to introduce sloyd in the school programs and to invite Swedish teachers to work in those countries. After the 1880s, Otto Salomon received important letters from the governments of Argentina, Chile, Brazil, Uruguay, Peru, Costa Rica, and some years later (1900) from Cuba, asking for his collaboration to develop sloyd education (Thorbjörnsson, 1990). Since 1887 an important group of Swedish sloyd teachers arrived in different Latin American countries (see Figure 1 and Table I).

Figure 1. *Latin American countries where Swedish sloyd teachers worked at the end of last century and beginning of the present one.*

In his correspondence with Swedish teachers Salomon consistently asked for detailed descriptions about the sloyd development in the countries where they where working. At the same time, he gave suggestions about how to adapt sloyd to the traditions and school system of every country (Thorbjornsson, 1990).

Since its introduction sloyd had to face the lack of necessary means to put it into practice. In Chile and Argentina a considerable number of tools were imported from Sweden through Salomon's collaboration.

Table I. *Swedish sloyd teachers who worked in Latin America (modified after Thorbjornsson, 1990, pp. 258-259)*

Name	Country and City where worked	Period
Jenny Ericson	Puerto Rico, San Juan	1900-?
Aron Lunden	Costa Rica, San José	1901-?
Anna Wahlberg	Cuba, Santiago de Cuba	1901-?
J. M. Lundgren	Cienfuegos	1902-03
Aron Heidengren	Havana	1902-11-?
Karl Appelkvist	Cienfuegos	1903-?
Charles Åberg	Cienfuegos	1904-?
Anders Danielsson	Argentine, Esquina	1890-96-?
Carl M. Hardh	Corrientes	1893
Gerhard Victorin	Buenos Aires	1893-95
Carl F. Forsman	Chile, Chillan	1890-92
Karl Ekelund	Santiago	1890-95-?
Emil Ekelund		1896-?
C. E. Linder		?1887-
J. A. Billing	V alparaiso	?1887-
C. O. Ahlmark	Valparaiso	?c.a.1900-?
Brita Rydell		c.a.1900-?
Docki Rydell		c.a.1904-?
Bertha Tenggren		
Gerhard Victorin	Uruguay, Montevideo	1895-c.a.01
Ernst Bjerke	Peru, Lima	1907-c.a.10
Jonas Ekstrand		

The process of introducing sloyd in Latin America received greater support in the countries that had a more advanced level of economic and social development such as Chile and Argentina.

Notes:
- (?) The exact period of their stay is not clearly defined.
- The work of Swedish sloyd teachers in Brazil (Santos 1890 and Sao Paulo 1894) and Venezuela (1912 approximately) is also mentioned in the literature.

Chile

The Chilean economy at the end of the war against Peru (1879-1883), started a period of growing that influenced directly the development of the educational system. The world exhibition in Paris (1889) showed some of these advances in the Chilean educational sector.

After the visit to Nääs by Claudio Matte, the Chilean pedagogue Joaquín Cabezas visited Sweden to study the sloyd and the gymnastic method created by Perh H. Lind, the other important Swedish contributor to international education at that time.

As previously mentioned Cabeza "translated" into Spanish in 1893 one of the most important works of Salomon, Manual of Wooden Sloyd. By quoting the word translated it is important to point out what he underlined in the preface: *"... It is not a translation of the Swedish text, we have wiped out all those elements that we consider applicable only to Sweden, but instead we have included the issues that we thought would necessarily have to appear in a work like this."* (Cabezas, 1893). Chapters II, III and IV were rewritten and enlarged considerably but keeping the same order and distribution of the original. The preface written by Cabezas gives detailed information about the starting and development of sloyd up to that time, its principal concepts and characteristics. This work contributed to a great extent to the introduction of sloyd in the Spanish speaking countries and remained for a long time as consulting material by sloyd teachers. At the Pan-American exhibition in Buffalo (1902) Cabezas presented a new book about the sloyd development in Chile (Thorbjornsson, 1990).

One of the facts having an important influence on the introduction of sloyd in Chile was the pedagogical congress held in Santiago de Chile on September 20, 1889. The important agreements adopted were of practical value because of their official character. In the first agreement it is pointed out that *"sloyd education should appear in the primary school programs as a matter that contributes powerfully to the children's education and facilitates the acquisition of knowledge and useful habits"*. The second one states that *"this teaching should look for purely educative aims because the principal objective should be the general education of children"* (Porcel y Riera, 1892). The following six agreements in regard to sloyd teaching bring out, among other things, the convenience of the use of the Nääs system, the place of the subject in the school schedule and some other aspects related to the organisation of this subject.

After this congress, sloyd education in Chilean schools was officialised. Due to the importance of this congress, we consider the date on which it was held as the beginning of sloyd introduction in Latin America.

In 1893 Joaquín Cabezas came back to Chile from Sweden and began an outstanding work in teaching sloyd methodology to Chilean teachers. It is important to point out that, in spite of the agreements of 1889, the teaching of this subject was submitted to the changing decisions of the government of this country. This phenomenon was very common to the rest of Latin American countries. In 1889 the first course for sloyd teachers in Chile was organised by Joaquín Cabezas. This course was divided into two sections: cardboard work for females and wood sloyd for males.

In 1899, wood sloyd was taught in schools for boys in Santiago de Chile, Valparaiso, San Felipe and other important cities. The Chilean ministry of education gave important support to Cabezas during this year.

An important sloyd exhibition was held in Santiago de Chile in 1902, the sample sent from Nääs (a school chair) was awarded the first prize. Sloyd was such a fashionable issue that the pedagogical museum of that city bought the whole collection of models and the tools exhibited (Thorbjörnsson, 1990).

Argentina

At the end of the last century Argentina had reached important advances in its socio-economic development, which were of special importance in the educational field: the number of schools increased, new and modern schools were built, the government gave considerable resources to teacher training. Reflecting all this development at the world exhibition in Paris, 1889, the stand of Argentina's schools got the honour prize (Porcel y Riera, 1892).

As part of this growing interest in educational development, Pablo Pizzurno, school supervisor in Buenos Aires, was sent to Nääs in 1889 to study sloyd. After his return he made an intense effort to make sloyd known to Argentinean teachers, being supported by the Swedish teacher Carl M. Harth. Their work made it possible, in 1890, for some school workshops to begin to work as a pilot plan.

The teaching of sloyd reached an important and generalised level in Argentinean schools during the last decade of 19th century. The outstanding role played by the Swedish teacher Gerhard Victorin in the training of Argentinean teachers of this subject should be pointed out.

Uruguay

This country was among the Latin American countries going through a remarkable development at the end of the last century. The study of European educational experiences became of interest to governmental authorities aiming at developing a modern educational system.

Two important Uruguayan pedagogues participated in the course # 51 at the Nääs Seminarium in 1890: the general supervisor of schools, José H. Figueira, and the teacher Claudio Basaldúa. They were later responsible for teaching sloyd to teachers all over Uruguay. Similar to what he had done in Argentine, the Swedish teacher Gerhard Victorin played an important role in the teaching of the subject to Uruguayan teachers from 1898 on. The organisation of the educational system in Uruguay was identical to that in Sweden at the time (Porcel y Riera, 1892). The pedagogical ideas of Salomon had very important influence in this country.

Brazil

We still have very limited information about the process of introducing of sloyd in Brazil. Nevertheless, there are materials that show the relation of Brazilian education with the initial development of sloyd in Latin America. August Abrahamsson sent two series of sloyd models to the Brazilian Emperor Don Pedro II. One of these was used in practice in the deaf-mute institute from Rio de Janeiro, and the other was sent to a museum (Thorbjörnsson, 1990).

In 1891 the first Brazilian teacher studied at Nääs Seminarium. Three years later, a collection of sloyd products coming from Brazil was rewarded at the Chicago exhibition.

Mexico

The previously analysed regularities of the development of Latin America in the 19th century differ from those of Mexico in certain aspects. The Indian population of this country put considerable pressure on the public authorities to introduce, in the independence struggle, a social character that identified the future development of this country (Furtado, 1980). This characteristic is perceived in the educational development at the end of the 19th century in regard to sloyd education. On December 1, 1889, a congress was held in order to, among other objectives, unify the educational system in the different Mexican states. Within the agreements the practice of *manual work* in all the schools was approved as a continuation of the Froebel system. The schools were given the

opportunity to choose the most suitable variants of craft education according to their own preferences, needs and the characteristics of the population. Sloyd was also included in the curriculum at teacher-training colleges. The teaching of the subject in many Mexican schools is for the first time reported at the beginning of the 1890th (Porcel y Riera, 1890).

Some of the most relevant aspects regarding the introduction of sloyd in a very significant group of countries that may be considered as pioneers in this field have been previously analysed. However, this process in other countries such as Costa Rica, Puerto Rico, Venezuela, etc. is also of remarkable importance.

Sloyd and Cuban pedagogy

The introduction of sloyd in Cuba (1900-1901) is a direct consequence of the reorganisation of the educational system carried out by the U.S.A. intervention government. Nevertheless, the roots of this process should be sought in the pedagogical thought of the most important Cuban thinkers of the 19th century (Moreno & Mejías, 1990).

Already in 1817 the priest Félix Varela (1788-1853), an outstanding philosopher and teacher, pointed out the necessity of an experimental and practical education which would develop the individual from an early age. His pupil José de la Luz y Caballero made later a similar claim. In his definition of the meaning of education he stated that *"education should be given a more practicable and applicable significance in relation to human needs"* (Chávez, 1992).

All those criteria found continuity in the works of the Cuban national hero José Martí (1853-1895). His pedagogical thought represented the most positive summary of the previous heritage and at the same time a projection of ideas to a higher level of future importance. His important reflections about the benefits of manual work as a means of education are seen in the following idea:

"Physical, mental and moral advantage come out from manual work (...) Man grows with the work he does with his own hands" (Martí, 1990).

All his pedagogical work reflects great preoccupation with making the individual's education integral, thus contributing to the development of all human potentialities.
This important background contributed to the positive acceptance of sloyd by Cuban pedagogy when the U.S. occupation authorities introduced it. The North

American professor L. L. Summer graduated from Pratt Institute, New York, and Nääs Seminarium, was named supervisor of manual teaching which is connected with the suggestions that Salomon had made to educational authorities in Cuba (Thorbjörnsson, 1990).

In the summer of 1900, a group of forty Cuban teachers took a course in sloyd at Boston with the Swedish professor Gustav Larsson; nevertheless, the number of Cuban teachers prepared to teach this subject was not enough (Moreno & Mejías, 1990). The commissioner of public instruction, Mathew E. Hanna, decided to ask for teachers from the USA and some other countries, especially Sweden, who were willing to work in Cuba. Closely connected with the links between Otto Salomon and the Cuban authorities, from 1901 to 1904, arrived a group of five Swedish sloyd teachers who worked in different cities of the country.

Among these teachers was Aron Heidengren, who in Salomon's opinion was probably the best sloyd teacher he had ever seen (Thorbjörnsson, 1992). This teacher played a very special role in the process of introducing sloyd in Cuba. His important writings in the pedagogical newspapers of that time and the other activities he made were of great importance to the spreading of sloyd among the Cuban teachers. Around 1906 he was named general inspector of sloyd for all the country. The work developed by his colleague Charles Åberg in the city of Cienfuegos is also considered of the utmost importance.

The Manual de Sloyd Cubano *(Manual of Cuban Sloyd)*, written by Aron Heidengren, was published in 1906, the first Cuban book devoted to sloyd teaching. The words written in the preface by Enrique José Varona (1844-1933), the most outstanding Cuban pedagogue of the century constitute a valuable explanation of the reasons that made possible the assimilation of sloyd by Cuban pedagogy.

There was a negative reaction against some of the measures adopted by the US intervention government in most of the sectors of Cuban society at the beginning of the century. The proposed introduction in Cuban schools of foreign teachers and textbooks by American writers met with a great opposition by Cuban teachers and society in general because of the negative influence it would later have on Cuban's cultural identity (Expósito, 1985).

What happened then with sloyd?

To answer this question, it is necessary to analyse Cuban sloyd as a qualitatively new system that emerged when the most fundamental basis of the sloyd came into contact with the Cuban reality and the national pedagogical ideal.

Only two months after his arrival, Aron Heidengren changed completely the series of sloyd models he was bringing in, and created another totally new one based on the interests and needs of Cuban children. This earned him respect and recognition among students and educators. His continuous interest in the development of a form of sloyd that would answer to the Cuban needs is shown when, during the national exhibition of 1911, he arranged a contest in order to elaborate a new series of models.

Another valuable element to clarify the stated question is obtained through the analysis of the objectives of sloyd and some of the most important statements from outstanding representatives of the Cuban pedagogical ideal.

Within the aims of sloyd are included the following:

- To awaken in the children the love and taste for work in a general sense.
- To inspire respect for corporal work.
- To develop self-activity.
- To develop self-confidence, that is to say independence.

In the article Escuelas de artes y oficios *(Schools of arts and trades)* written by José Martí in November 1883, we find the following ideas:

- *"Every man should learn to do something on behalf of other people's needs"*
- *" Who ever wants a living nation must help to settle the things in his land, in such a way that each man could build and develop himself through an active and suitable job"*
- *"The general happiness of a country lies in the individual independence of its citizens"* (Martí, 1990).

The traditional opening of the Cuban school to the most positive values of world pedagogy is a factor that also favoured the assimilation of sloyd.

The curriculum approved on May 20, 1901, included, for the first time, sloyd teaching as a subject that should be taught daily from first to sixth grade. Other

important steps directed towards the organisation of sloyd teaching in the Cuban schools were adopted that year. At the international exhibition held in 1904 in Saint Louis, USA, Cuban children's sloyd works were exhibited. The development of the links between the Cuban pedagogues and sloyd became much more remarkable when the following Cuban teachers visited Nääs:

- Rafael Pérez, from Cienfuegos in 1906.
- Alberto Pérez de Villa-Amil, from Cienfuegos in 1907.
- R. Figuerola and T. R. Pichardo, from Santa Clara in 1908.
- Mercedes Xiquez, from Camagüey in 1909.

After returning to Cuba they published articles and prepared materials that contributed to make sloyd popular among Cuban teachers.

In 1914 the national school board promulgated law No. 83, establishing sloyd teaching from the third up to the eight grades. A new series of models was established which was in use until 1926 when changes in the school curriculum took place.

The sloyd decay in Latin America and Cuba during the present century

The analysis of the process of sloyd decadence in the Latin American pedagogy proves to be as complex as the study of its introduction in this region due to the difficulties of access to information on the matter and also because of the inner complexity of the process.

Studies of the development of sloyd in Cuba (Moreno & Mejías, 1990) and Sweden (Thorbjörnsson, 1990) and the analysis of pedagogical literature and documents about the cultural development of Latin America in the 20th century allow for some consideration of this issue.

The complex and unstable economic development of Latin America during this century had a special effect upon the social sectors, important budget reductions affected the educational system, which lead to the almost total neglect of education.

The efforts and the enthusiasm of many valuable teachers did not, as in the particular case of Cuba, get the necessary material support. This brought about that sloyd teaching at schools, not totally approved by some sectors of society, was limited to showing its benefits. Although among teachers the educative value of sloyd teaching was recognised, at the level of social consciousness

prevailed the criterion that this subject was only appropriate for vocational training or for "less intelligent" children.

The increasing development of pedagogical tendencies, e.g. pragmatism, school of work, influenced the decay of sloyd which had only available in Latin America the bibliography translated into Spanish by Salomon's followers at the end of the last century and the very beginning of the present one. The most important works of Salomon, the last ideas he developed, were never translated into Spanish or any other language (Thorbjörnsson, 1989).

On the other hand, sloyd itself, in its home country, got into a complex process of improvement regarding form. When Salomon died, his followers were not creative enough and sloyd started to lack the dynamic character imposed by its creator. With the coming on the scene of Karl Malmsten and his new ideas concerning the essence of sloyd education a radical change began, but the image of an orthodox and inflexible sloyd had spread internationally, leading to a lack of competitiveness with the new pedagogical trends.

A very important Cuban pedagogue, Alfredo M. Aguayo (1866-1948), referred to sloyd in the following terms: *"Very much in fashion at the end of the 19th century and at the beginning of the current one, the sloyd has lost the importance it was once given by former educators. Among the objections to sloyd are: its strictness, its excessive formality and the lack of interest children show in it"* (Aguayo, 1959). This statement gives us an exact idea of what the concept of sloyd started to be like.

In Latin America the pedagogical book serie El tesoro del maestro *(The treasure of the teacher)* was widely spread. In Volume V, devoted to practical subjects, its author the German pedagogue H. Denzer in an extensive treatment of practical education at the compulsory school (87 pages) writes only a paragraph to give general references about sloyd. Salomon is not mentioned.

As can be seen, in many of these works sloyd was systematically ignored, whether for ignorance or any other reasons. With Salomon's early death in 1907 ended a valuable interchange of ideas and opinions between him and sloyd teachers in Latin America which had, to a certain extent, compensated for the lack of bibliography on the subject.

Already in 1906, A. Heidengren defended with solid arguments the real values of sloyd in his book Manual de Sloyd Cubano *(Manual of Cuban Sloyd)* against the critics of an American teacher whose name is not mentioned. Heidengren used as one of his arguments the prologue written by Salomon for a book by

Alfred Johansson, *"There is nothing more dangerous than the status quo. All that exists (...) is submitted to the law of evolution; many things that seemed excellent for us yesterday, today can be less acceptable"* (Heidengren, 1906). Salomon never had the opportunity to answer to his must important critics (Thorbjörnsson, 1990) and his followers at that time never had the dynamic character he had impressed on sloyd.

Is there any sloyd heritage in Cuban and Latin American Pedagogy?

As we have seen so far, the process of introducing sloyd in Latin America was very complex. There is however an important element that should be pointed out, and it is the fact that Latin American and Swedish teachers that worked in this region were very careful to adjust sloyd to the conditions and characteristics of every country.

All this contributed greatly, with the passing of time, to the development of a sloyd that kept its fundamental aims, but whose form had much to do with the conditions and customs of the place where it was developed. The works of Joaquín Cabezas, Aron Heidengren and the Cuban Blanca Rives can be mentioned as examples.

In the specific case of Cuba, our possibilities of giving a positive answer are greater. The present-day *Educación Laboral*, in a continuous process of improvement is to a great extent a summary of a valuable pedagogical heritage, which has its most fundamental roots in Swedish sloyd. Nowadays goals in the teaching of *Educación Laboral* are closely related with those of sloyd.

Final considerations

The economic development experienced by the most important Latin American countries at the end of the 19th century played a very important role in the development of their educational systems. The introduction of sloyd answers to the needs of preparing an individual to face the economic development of these countries and the claims of important social sectors to a modern, practical and experimental education.

The humanistic character of sloyd, its emphasis on the development of the whole human being and the high level of integration of its didactic system are very important conditions for its early assimilation by Latin American pedagogy. This process was highly favoured by the fact that the founder of

sloyd consistently aimed at adapting it to the specific conditions of each country. Another important fact to consider in this process is the existence in Latin America of a revolutionary and advanced pedagogical way of thinking that allowed the assimilation of the system *(sloyd)* and encouraged its creative development according to the individual features of the regional context. When the original bases of sloyd are brought into touch with the reality, ways of doing and the Latin American pedagogical thought, a qualitative new sloyd arises as part of the pedagogy of this region.

The process of decadence of sloyd in Latin America from the third decade of this century on is associated with:

- The crisis of Latin American society, which as a consequence of the great economic crisis of capitalism in these years, suffered from great poverty and was ruled by military dictatorships. This socio-economic and political context led to the breakdown of the educational systems of the region.
- The increase of pedagogical tendencies that in one way or another ignored the values of sloyd.
- The "crisis" that affected Swedish sloyd after Salomon's death until its strengthening in the form of Karl Malmsten's and his followers' ideas.

Sloyd left an important heritage in Latin American pedagogy that stretches beyond working methods or specific didactic aspects. Its main contribution lies in the development of a consciousness about the necessity of manual work as an important educative means for the holistic education of children. This heritage is expressed in our times by means of important points of contact between today's sloyd and the sloyd teaching in some Latin American countries. This aspect supports to a great extent the efforts directed towards the improvement of sloyd teaching, having this inheritance as an important starting-point.

References

Aguayo, A.M. (1959). Pedagogía para escuelas y colegios normales. La Habana: Cultural S.A.

Bennett, C. A. (1937). *History of manual and industrial education 1870 to 1917*. Peoria, IL.L: Chas A. Bennet Co., Inc. PUBLISHERS.

Cabezas, J. (1893). *Manual de Sloyd en madera para uso del maestro y del alumno* por O. Salomon, C. Nordendahl, A. Johansson (traducción) Leipzig; F. A. Brockhaus.

Chávez, J. A. (1992). *Del ideario pedagógico de José de la Luz y Caballero (1800-1862)*. Ciudad de La Habana: Editorial Pueblo y Educación.

Colectivo de autores, (1980). *Historia de América II. Selección de lecturas. Tomos I y II*. Ciudad de La Habana: Editorial Pueblo y Educación.

Denzer, H. (1948?). Enseñanza de los trabajos manuales. In *El tesoro del maestro. Tomo V. Disciplinas prácticas*. Editorial Labor. S.A.

Endo,T. (1987). *The development of an educational idea* Linköping: Linkoping University.

Exposito, B. (1985). *Apuntes del movimiento de los trabajadores de la educación 1899-1961*. La Habana: Editorial de Ciencias Sociales.

Furtado, C. (1980). Breve historia económica de latinoamerica. En *Historia de América II selección de lecturas. Tomo I*. Editorial Pueblo y Educación.

Heidengren , A. (1906). *Manual de Sloyd cubano*. La Habana: Imp. y lib. "La moderna poesía".

Hughes, C. (1993). *Otto Salomon an enigma*. Linköping: Universitetet i Linköping.

Martí, J. (1992). *Ideario pedagógico*. La Habana: Editorial Pueblo y Educación.

Moreno, L. & Mejias, R. (1990). *Enseñanza del trabajo manual en la escuela cubana pre-revolucionaria. Apuntes para su historia*. Pinar del Río: Instituto Superior Pedagógico de Pinar del Río.

Porcel y Riera, M. (1892). *Los trabajos manuales en la escuela primaria*. La Palma: Escuela tipográfica provincial.

Pedagogía, (1991). Ciudad de La Habana: Editorial Pueblo y Educación.

Materials consulted by the author at the Library in Nääs , Sweden. May 1993.

Reincke, H. J. (1995). *Slojd. Die schwedische Arbeitserziehung in der internationalen Reformpadagogik*. PETER LANG. Europaischer Verlag der Wissenschaften.

Salomon, O. (1890, April 8th). *Manual training. An address to the National Union of Teachers*. London: Geo, Phillip & Son, 32, Fleet Steet, E.C.

Thorbjörnsson, H. (1989). Nääs, slöjden Mecca och El Dorado. *Slöjdforum 6*. pp. 8-12.
Thorbjörnsson, H. (1990). *Nääs och Otto Salomon slöjden och leken*. Helsinborg: Ordbildarna.
Thorbjörnsson, H. (1991, April). *Mail with the author*.
Thorbjörnsson, H. (1992). *Profiles: Otto Salomon*. Manuscript.

Article 3 Teaching-organizational factors in the development of creativity through sloyd education

Abstract

The study of the different factors conditioning the development of creative potentialities in children is extremely complex. The author assumes that, in the specific case of sloyd lessons, these factors can be classified into three wide categories:

- teaching-organizatives,
- affective-motivationals and
- intellectual-cognitives.

This article analyses the importance of teaching-organizative factors in the development of children's creative potentialities through sloyd education. A detailed presentation of the results obtained ending the first year of experimental work with Cuban children is made, including also a general description of research methods used. The article shows that a flexible, participatory, learning environment - which permits and stimulates the children's interests - becomes a factor stimulating their creative potentialities.

Key words: creativity, teaching-organizative factors, sloyd lesson, research methods.

Introduction

The problem of encouraging creativity increasingly involves more specialists from different disciplines, i.e. psychologists, sociologists and pedagogues. This is not occasional but historically conditioned by the requirements of modern society, the increasing development of science and technology and a very special interest in the development of human potentialities (González & Mitjans, 1989). However, this becomes a very difficult area of study, not only because of the diversity of determining factors (Guilford, 1965), but also because of the complexity of mechanisms through which those factors are realised (Heinelt, 1979).

Summing up the information on this issue found in different sources, factors conditioning the development of creativity in children can be classified into three wide categories: teaching-organizational, affective-motivationals and intellectual-cognitives.

From a methodological standpoint, it is important to study the problem of creativity in the context of human activity (González & Mitjans, 1989), and related to the solution of problems (Moraga, 1987) for which the development of skills, habits and capacities is needed, that is, closely related to the executive sphere of personality (Rodriguez, 1984). At the same time psychologists consider it essential to analyse creativity closely connected with the inductive sphere of personality (Landau, 1987; Rodríguez, 1994). We cannot talk of a creative act if there is not an adequate motivation when fulfilling the task, that is, if its realisation is not inserted into the system of the individual's interests.

With regard to the former assertion, Cuban researcher Albertina Mitjans (1984) says: *"... in our researches we have found that creativity is the expression of the unity between the cognitive and the affective spheres of the personality; although at a given moment one of the elements seems to dominate the other and vice versa, it is precisely such unity - acting as a behaviour regulator – which supports the creative process..."*

Another position considers that the strengthening of creative potentialities in children is closely related to the educative conditions and the educational environment for their formation. A participatory education, where children as individuals could find alternatives to self-development, is more appropriate for the development of creativity than an authoritarian one which predetermines everything, and compels the children to adjust to it (González, 1991). This clearly refers to teaching-organizational factors.

From recognising two levels in the activity: one internal and another one external, it is necessary to order the factors determining the development of creative potentialities according to the complexity of the psychological level of the mechanism by means of which they are manifested. The affective-motivational and cognitive-intellectual factors are of a psychological nature; they are closely related to the internal level of the individual's activity. The teaching-organizational factors, however, are of a pedagogical nature; consequently, they exert an external influence upon children.

In this research work different ways and mechanisms to stimulate the development of creativity in children from 8 to 12 years of age through the sloyd lesson were studied. The pedagogical experiment carried out is of a

longitudinal and developmental character (Moreno, 1993), but the initial results, after one year of work, showed the influence of teaching-organizational factors in the attempt to develop a creative individual. The present work goes deeper into the details of that relation.

One premise of the research is to admit that Cuban children show talent and creativity for the production of toys and games of different kinds using a wide variety of materials and constructive solutions. Then the problem is to create the necessary organising and motivational conditions and the adequate level of habits, skills and capacities in the sloyd lesson, which permit the children to freely explore their individual potentialities when participating in the creative process from the outburst of the idea until its practical realisation in a finished product.

Generalities of the experiment

The experiment essentially defines the problem of organising and developing the above-mentioned factors during the sloyd lesson for children from 8 to 12 years of age. This organisation was aimed to be done in such a way that its stimulating action concerning the development of creativity could be favoured, minimising the effect of those factors hindering it.

During the first year's experimental work the organisation of the teaching material by areas of interest[1] (Lundberg, 1974; Erikson, 1992) was combined with the structure of the content in unit of studies as it is stated in the national syllabus for the subject (MINED, 1990). The area of interest defined the *content of the production* by the children, e.g. kinds of toys, objects to elaborate and the unit of study defined the *system of abilities* to be developed. The area of interest selected was *toys*, due to its important meaning for Cuban children at this age. This fact has been established in previous research (ICCP, 1987). It was also taken into account that 93 % of the children from the sample taken for the experiment like games as a daily activity. It was also found that 85,6 % of them showed interest towards acquisition and construction of toys.

The working units during the school year were: paper works (week 1 to 10), textile works (week 11 to 17) and work with different materials such as shells, seeds, plastic (week 18 to 30). By decision of the author (Moreno, 1993) wood and metals were included as materials to provide the children participating in the experiment with more possibilities in their creative work. In the Cuban

[1] The area of interest is a teaching organising method which facilitates the motivating activity of the teacher and offers a frame for children's creative work.

educational system children start wood and metal work in the fifth grade (10 years). The daily activities were conveniently arranged and proper material conditions in the workshop were created so that the children's work would not be limited.

The motivational work was done through different activities e.g. debates, conversations, pictures presentations, narration about games and toys in different regions of the country and places all over the world. Small trips around the school area and study visits were arranged as well. Those activities took place in different periods during the school year, i.e. at the very beginning and at the end of each unit, during the lessons, taking advantage of the following elements:

- The satisfaction of producing their own means and resources.
- The relation of the sloyd lesson to the community as part of the cultural identity of the children.
- The national cultural identity as general feeling of children.
- The link of their work in the subject with daily-life problems, the protection of the environment and the production and exploitation of material goods, etc.

In the experimental group, children had the option (after the motivational work and the corresponding orientation) of selecting by themselves the articles to be elaborated. In this way the systematic practice of traditionally organised courses of sloyd lessons was eliminated. The definition of the article to be produced and the presentation of the corresponding prototype by the teacher were also abolished.

In relation to the executive and intellectual-cognitive aspects:

- An "inventory" was made of manual skills and technical know-how required by the children according to the type of material to used; they were classified by units; the work to develop them was done individually and in small groups. Usually at the beginning of the lessons the correct way of handling some tools and specific techniques was briefly explained. While working mistakes in the realisation of techniques and handling of the tools were corrected individually. Other procedures were also practised.

- Special attention was given to the skill of modelling related to the planning of the work, a wide concept which gave the children more freedom in their creative work was adapted. Different procedures were put into practice while planning their work. The criterion of its individual selection depending on

the complexity of the task was also observed. The procedures applied included e.g. modelling with clay, games of technical modelling[2] construction of patterns with paper and cardboard, the representation of the article by hand drawing with the dimensioning, questionnaire-guides. The combination of different ways of planning was not limited at any stage.

During the process of planning, the children had the possibility of modifying the initial project whenever they had a certain handling problem or simply when a new idea arose. In this work the author define those situations as "drawbacks" and it responds to the theories in relation to the sloyd process developed by Sjogren (1987), Lindfors (1991a, 1991b) and Johansson (1994).

Methods and instruments

Considering that *"... at the present time the lack of elaborated criteria for determining the difference between non-creative and creative human activity is accepted..."* (Ponomariov, 1976) and also taking into account the character of this research (Moreno, 1993) which tends to make an integral study of the children's personality, the procedures used during this initial stage of the project were:

- Characterise children as more or less creative based on: Guilford's tests, results their work in the sloyd lesson, experts criterion, biographical data and social behaviour.
- Study of features of personality (cognitive, affective and motivational spheres) through the application of specific instruments and specialised tests validated in researches at national and international levels.
- To decide about the level of ingeniousness of the studied children (expert criterion) several aspects were taken into account, among them: originality of the production in the sloyd lesson (type of article produced and its design), originality in the use of tools, in manual operation for mastering a task, in the use of materials and the solutions given to difficulties faced while working or the answers to the questions asked by the teachers, the socio-cultural background and the environment of children.

The author assumes Guilford's standpoint (1965) and considers *fluency*, *flexibility*, *originality* and *elaboration* as indicators of creativity. However, in the case of the production in the sloyd lesson a description in Guilford's terms was not practised because the sample is still small and cannot tolerate a

[2] Boxes of different pieces of plastic, including screws

consistent statistic analysis (Guilford, 1965; Hattie and Rogers, 1986). Besides, the criteria for evaluation is not yet accurately instrumented. Indicators of diversity as expression of creativity in manual production were initially selected:

- variety of products and designs,
- the number of details added per article (details essentially related to the object produced; superfluous details were not considered), and
- originality of the product within the sample considered.

The exercises selected from Guilford's tests to be initially applied were:

1. a. To make different pictures out of twelve circles.
   b. To make different combinations starting from two straight lines and one curved line.
2. Enumerate possible applications of a brick and a pencil in a limited period of ten minutes.

The following criteria for evaluation were adopted:

- Fluency: quantity of solutions the children contribute with.
- Flexibility: number of different answers (variety).
- Elaboration: number of essential details added to the basic minimum idea.
- Originality: all answers, solutions or products, etc. which appeared in less than 25 % of the sample were considered original.

The child who fulfilled conditions of fluent and a flexible thought, capacity of elaboration and originality in his/her answers, solutions and manual productions in the sloyd lesson was considered creative. The children were initially classified as "more creative" or "less creative" with respect to the standard behaviour of the group.

To study the motivational area of children the following procedures were used: to complete phrases, writing compositions, interviewing parents, teachers and the children.

A careful observation of the entire lesson was registered in the experiment portfolio. It was also a main aim to make the researcher an active participant in the process and a familiar element to the children.

Their attitude towards the subject sloyd was studied, e.g. using the composition as a technique and through a survey asking the investigated children to define the two subjects they liked the most and the two they liked the least.

The sociograms of both groups, experimental and control were made during week 28 of the experiment. The following questions were asked to the children:
a. Who would you like to play with in your free time?
b. Who would you like to study with?
c. Who would you like to work with in the sloyd lesson?

Remarks on the selection and characterisation of the sample

The experimental group which was under an alternative program in the subject sloyd (Moreno, 1993) was selected from a school in the municipality of Los Palacios, Pinar del Río province, in the western part of Cuba. There was also a control group in another school in the same municipality. The exchange of information between the two groups was avoided.

The sample of this research (experimental and control groups) was selected from the total numbert of students in the grade, following the criterion of a representative sample of the variety of the whole population. This work was supported by a psychopedagogical study of children which took into account: general learning results, specific results in sloyd, attitude towards studies and intelligence coefficient (assessed according to the WISC scale), results of Guilford's test, etc. In Table I there is a summary of some of the indicators which characterised both groups at the beginning of the experiment. A team of psychologists and experts from the Center for Diagnostic and Orientation (CDO) in Los Palacios did an important part of this work.

In both groups (experimental and control) there was a subject teacher for the sloyd lesson.

Table 1. *Psychopedagogic characteristics of the investigated groups at the beginning of the experiment (Week 1).*

Indicators	Experimental Group	Control Group
1. Size of the sample / number of children	30	30
2. Average age / years	8,3 (0,9)	8,2 (0,9)
3. Intelligence coefficient / points (WISC scale)	101 (14,6)	99 (10,3)
4. Outcomes of the evaluation of the children in previous grades[1]:		
• general	4,4 (0,75)	4,5 (0,73)
• in the sloyd subject	4,4 (0,69)	4,4 (0,75)
5. Attitude towards the sloyd subject[2]	Refusal	Refusal
6. Result of Guilford tests / standard value per child[3]:		
• fluency	3 (1,4)	3 (1,6)
• flexibility	3 (0,8)	2 (0,8)
• elaboration	2 (1,2)	2 (0,9)
• originality	1 (0,6)	1 (1,0)
• percentage of children considered "more creative" than the standard of the group	33,3	33,3
7. Coefficient of correlation of range (Rφ) for the relation[4]:		
• results of Guilford test vs. Teaching results	0,11	0,13
• results of Guilford test vs. Intelligence coefficient	0,39	0,35

Notes: Typical deviations (σ or S) are between parentheses.

1. The scale used is ; 5 : Excellent, 4 : Very good, 3 : Good, 2 : Fair, 1 : Poor.This scale was adopted instead of the qualitative one used at this level (1st to 4th grades) in the Cuban educational system.
2. See Figure 6.
3. Indicators of fluency, flexibility, elaboration and originality are the result of exercise 1(a and b) (See Methods and Implements). Percentage of children considered "more creative" than the standard includes also the result of exercise 2.
4. Levels for each variable are considered: above and below the standard of the group.

About productions in the sloyd lesson

The children from the experimental group had the possibility of deciding what articles to produce within the thematic context determined by the area of interest (toys) and the corresponding unit of the syllabus (paper, cardboard, textile and other materials).

The children in the control group, considering the up-to-date orientations of the subject (Ministry of Education, 1990), had to produce the article previously chosen by the teacher, who on that basis developed the corresponding motivational work. This motivational work included showing a model or a prototype of the article to be constructed and the analysis of its social importance, possible variations of design, etc. before starting the independent work of the children.

With experimental purposes problem solving techniques were applied to children from both the experimental and control groups. Two tasks were assigned to evaluate their development. Complete freedom was given for working:

- To make a design for the attendance control[3].
- To decorate the classroom with open-work in paper.

The children did both tasks every 10 weeks during all the experimental work at the starting of each study period[4].

Presentation and discussion of the results

Result of the manual work and creativity

During the period covered by this report, children in the experimental group showed more freedom in their work. The flexibility and freedom of the environment in the experimental conditions allowed the spontaneous overflowing of their creative imagination. This fact was corroborated in the different types of articles produced, models designed, materials chosen (during unity work with different materials) and added details to the finished work.

[3] In Cuban schools, teachers at the beginning of every school day traditionally do attendance control of children. In the experimental work the children were asked to register the attendance on their own using a figure designed and made by themselves with cardboard and/or other materials.

[4] In Cuban primary schools children have one week holiday after every 10 weeks of work.

In Figure 1, the results of how to make the control of attendance of the experimental and control groups are shown.

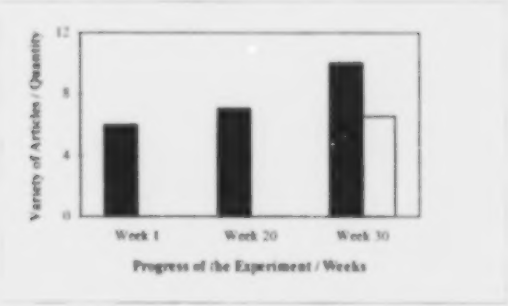

Figure 1. *Variation of the diversity of articles produced by children from the experimental (grey background) and control (white background) groups during the development of the experiment. Task: making the attendance control.*

Figure 2 represents the diversity of open-work in paper for classroom decoration. After thirty weeks of experiment, the control group (under convergent system of work) reached only the initial levels of variety of the experimental group. In this figure originality is assumed as uniqueness according to Wallace and Kogan's criteria (1965).

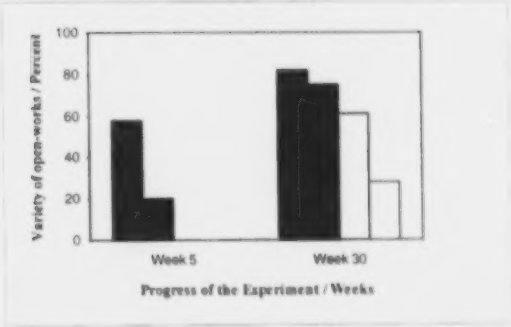

Figure 2. *Variety of open-work in paper made by children from the experimental (grey background) and control (white background) groups. To the left type of different open-works in paper, to the right unique models.*

Figure 3 shows the progress of the experimental group in the variety of designs produced by the children and the number of details added during the elaboration of the attendance control.

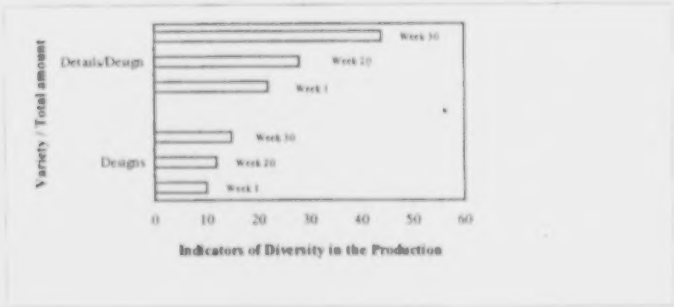

Figure 3. *Variation of the number of designs and details per design in making the attendance control in the experimental group.*

The above result, together with the increase in the types of objects produced (Figures 1 and 2) reveals the tendency of children to reflect increasingly in their work the qualitative diversity of the material world around them.

In the previous task, the emphasis of the orientation and motivation done by the teacher was focused upon the content of the problem and its social and individual significance, avoiding any other expression of interest in variety in the production, with the aim of avoiding bias in the result of the test.

Coincidentally with the findings of other researchers (Eriksson, et al., 1980; Moraga, 1987), the children's creative potentialities are very closely connected (when dealing with sloyd work) with the materials used for the production (see Figure 4).

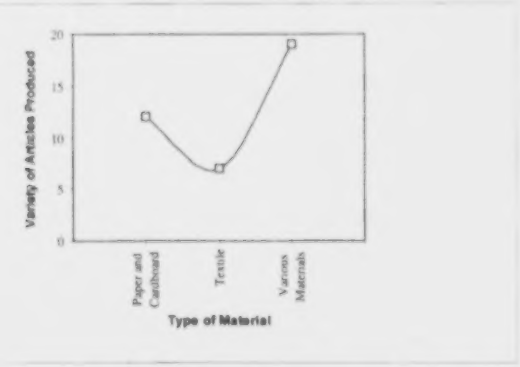

Figure 4. *Influence of the type of material on the variety of articles produced in the experimental group.*

The possibility given by wood to diversify the production and the solutions offered by the combination of wood, metal and seeds, justify the increase in the variety of articles produced in the unity of work with different materials. Cultural factors and physical properties of the material could explain the decrease observed in the case of textile work. Children show preference for working with wood (64 % of the experimental group). An important detail concerning the mechanism of realisation of creative potentialities in the case studied when the working conditions permitted free performance is revealed in

the analysis of the drawbacks during their work. The variation of the quantity of drawbacks produced by accident or handling mistakes and due to the appearance of new elements that enrich the content of the initial idea is represented in Figure 5.

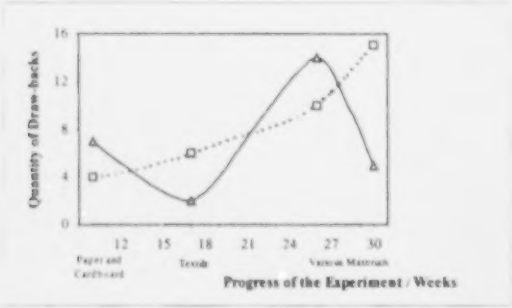

Figure 5. *Variation in number of drawbacks of children during the experimental work. The unity of work with various materials was divided into two sections for organizational reasons. The curves have an accumulative character. Solid line - accidental drawbacks; dotted line - drawbacks - produced by variation of ideas.*

The quantity of drawbacks by, e.g. accidents, handling mistakes of tools and instruments, etc. depends on the type of material the children work with (they decrease when working with textiles), the manual skills and the experience of work in a given material (they differ in the first and second stages in the unity of work with different materials). This explains the behave of the solid curve in Figure 5.

The above result agrees with the ones obtained by other researchers (Sjögren, 1987; Lindfors, 1991b) about the significance of cognitive intellectual factors (skills, habits, capacities) in the development of children's creative potentialities. The cause of many of the accidental drawbacks was the insufficient development of the corresponding practical skills. Only one of the total of drawbacks registered meant the withdrawal from the initial project recognising the practical incapacity to carry out the "lighted idea". This points to the positive significance of a flexible learning environment in the

development of creativity. The dotted line – in Figure 5 - on the contrary presents a monotonous growing and shows a sudden change in gradient at the end of the evaluated period. This is presumably related to the enrichment of the divergent thought in the relation: convergent thought-divergent thought-convergent thought (Guilford, 1959) suggested to explain the creative process.

Children of the experimental group, at the beginning of the experiment, were very anxious to achieve the practical realisation of their ideas without a sufficient mental elaboration of the product of their imagination. This was also one of the causes of the high percentage of accidental drawbacks. Throughout the experiment children were more flexible, careful and analytic in the logical processing of the "lighted" idea. The number of modifications, considerations and corrections with regards to the original idea increased. It seems to be closely related to this fact the rough increase in the level of elaboration of produced articles (number of details per design) which is observable at the end of the period reported in this work (see Figure 4).

The expert criterion for the production and the children's manual work in both groups permitted an initial classification of children as "more" or "less" creative according to the indicators stated in the experimental part. In the group under the divergent experience, 31 % is considered more creative than the standard, while in the group with convergent methodology only 11 % of the sample attained that condition.

In the experimental group, the expert criterion coincided in 73 % with the results of Guilford's test. According to the categories, for "more creative" children there was a coincident qualification between the expert criterion and the results of Guilford´s test in 63 % of the cases. However, for the "less creative" ones this coincidence went higher up: to 89 %. The theoretical information available is still insufficient to understand this fact, but the results in Table II permit a better approximation to its phenomenology.

Table II. *Correlation of indicators between the results of experts' criteria and the application of Guilford's test with respect to the creative qualities of the experimental group.*

Relation : expert criterion vs. ...	Coefficient of correlation of range (Rφ)
• General outcomes of the Guilford test	0,53
• Fluency (Guilford test)	0,88
• Flexibility (Guilford test)	0,33
• Originality (Guilford test)	0,21
• Elaboration (Guilford test)	0,12

The value of Rφ = 0,53 obtained after correlating the category as more or less creative than the standard of the group is of doubting significance:

$$\chi^2_{exp.} > \chi^2_{(0.05;1)} = 3,841$$

$$\chi^2_{exp.} < \chi^2_{(0.01;1)} = 6,635$$

However, it is the highest of all shown in Table II.

This reaffirms that the conceptualisation of creativity as a feature of personality requires an integral and complex analysis that goes beyond its definition through the factors by means of which creativity is expressed.

The coefficient of correlation of range for the relation between creativity and coefficient of intelligence stated in the WISC scale (0,30), and the teaching results of the 4th grade (0,27) is also low.

The motivational aspect of the problem

It is not an aim of this article to deepen the study of motivational area; however some considerations of this issue closely related to teaching organisational factors need to be presented.

When the experiment started - Table I - there was a general rejection of the sloyd subject among the children of the sample. In the experimental group, however, after thirty weeks of work, the attitude towards the subject changed greatly as can be seen in Figure 6; while in the control group there was a negative revaluation of it.

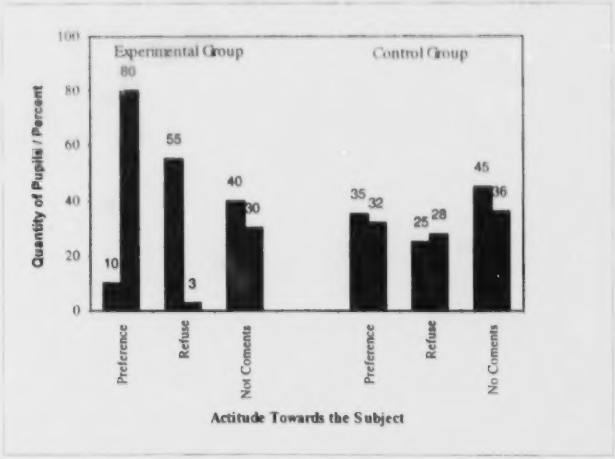

Figure 6. *Attitude of children from the experimental and control groups towards the subject sloyd at the beginning (left) of the experiment and after thirty weeks (right). The outcomes were obtained from an inquiry about the preference for the subject and a composition.*

In Table III there is a summary of the main motivation of children from the experimental group in relation to the subject.

In the experimental group the "individual, internal" character of the children's system of motives in relation to the subject stands out. In the work itself, the child find motives which relate him/her to the manual activity; the cognitive interest, the pleasure of satisfying his/her needs and the recognition achieved with his/her work in the experiment had a predominant influence in the whole activity. The benefit they obtain with the work also becomes an important motivating factor. Finally, all the orientation and motivation made by the teacher (external) turned out to be internal for the children. The creative work in the sloyd lesson became an individual problem for them.

Table III. *Predominant motivations in children from the experimental group in relation to the sloyd subject. Outcomes of a composition entitled "The sloyd subject". Week 38 of the experiment.*

Motives	Frequency (% of the sample)
1. To learn the use of different materials *(I learn to build objects with paper, wood, ...).*	57
2. Achievement of personal and social recognition *(In all lessons I get an excellent mark. Many people come to see us ...).*	38
3. Recognition of flexibility in the working environment *(There I work freely. They don't tell me that my work is wrong, the teacher is not pressing me, we are happy ...).*	36
4. Satisfaction of material needs *(I don't have to buy the things because I build them in the workshop).*	28
5. To learn the handling of tools *(I learn how to work with the saw, the file, ...).*	25
6. Utility reported by the activity *(I build my toys ...).*	25
7. Students' acceptance of the teacher *(We have a good teacher who treats us kindly).*	7
8. Learning of new useful knowledge *(Everyday I learn something new which is worthy ...).*	5

The learning environment and conditions of flexibility in which the child develops his/her activity gets special meaning in this individual elaboration of the external, motivational influence. The child finds understanding and consideration to solve satisfactorily without impositions the contradiction between his proper interests and the social ones. A great number of children explicitly referred to this fact (aspect 3 of Table III).

In the experiment, the use of practices which might inhibit children's creativity was avoided such as "repressive" evaluation of the learning results mentioned by other researchers (Moraga Moreno, 1987; Torrens, 1976; González, 1991).

The process previously analysed regarding the transition towards the internal sphere of the system of motives is clearly observed comparing the results of Tables III and IV where the motivational structure of children with respect to the sloyd subject at the beginning of the experiment is summed up.

There is a contrast between the potential, the non-realisation that is observed in the answers at the beginning of the experiment (Table IV) compared with the concretion and the practical accomplishment of the intention at the end of the period (Table III). In the control groups the expressions of unrealised potentialities amount to 70 % in both measurements.

Table IV. *Predominant motives in children from the experimental group in relation to the sloyd subject. Outcomes of a composition entitled "The sloyd subject". First week of the experiment.*

Motives	Frequency (% of the sample)
1.- I would like to do ...	68
2.- How funny it would be ...	32
3.- Possibilities of learning *(We can learn how to ...)*.	28
4.- Possibilities of building articles *(We could build ...)*.	25
5.- Significance of the subject *(It is very important; it is very interesting ...)*	15

A proof of the affective-motivational position of children in both the experimental and control groups towards the sloyd subject is manifested in the results of sociograms (Figures 7 and 8). In the experimental group, the similarity between the answers to the questions *Whom would you like to play with?* and *Whom would you like to work with in the sloyd lesson?* suggests an individual meaning, the internal significance and the pleasure he feels in the activity in the subject.

In the control group, the similarity is established among the answers to the questions *"Whom would you like to study with?"* and *"Whom would you like to work with in the sloyd lesson?"* The immediate result is that the sloyd lesson is assimilated by the students of the control group as another school task, not one of his own, this task doesn't have the same meaning for this child as to the one of the experimental group.

The interviews with parents and children permitted to verify that in the experimental group children were highly motivated for their work in the sloyd subject, happy with their results and with the feeling that throughout the subject they fulfil their interests and personal motivations. In this way, the affective motivational condition of the creative process is guaranteed.

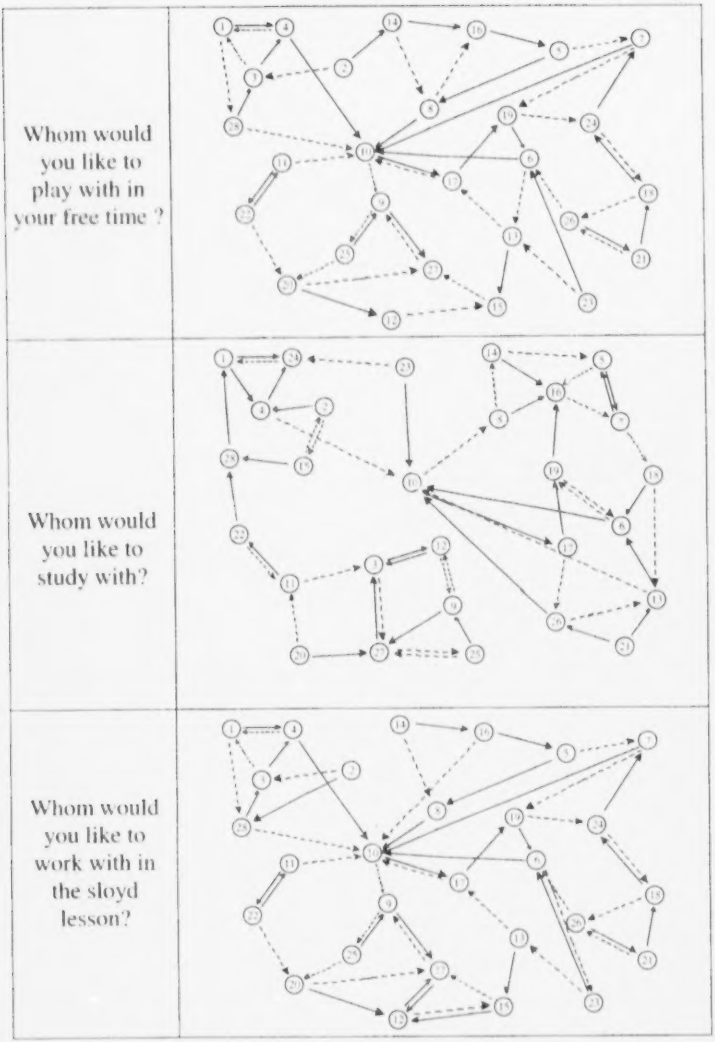
Whom would you like to play with in your free time ?
Whom would you like to study with?
Whom would you like to work with in the sloyd lesson?

Figure 7. *Sociogram of the experimental group after 30 weeks of work.*

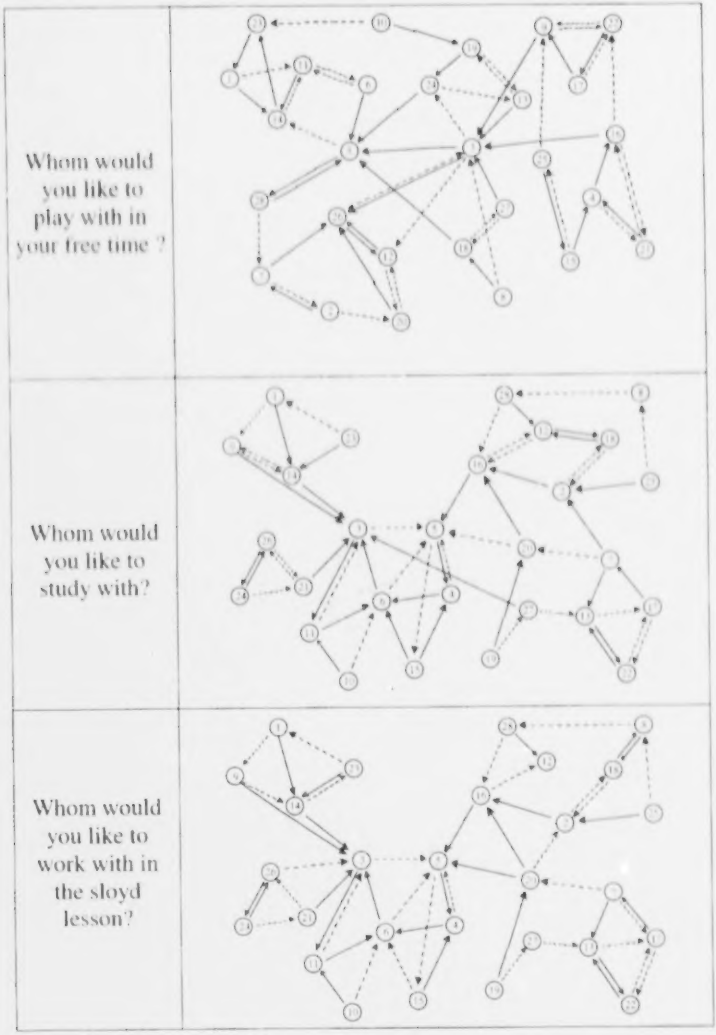
Whom would you like to play with in your free time ?
Whom would you like to study with?
Whom would you like to work with in the sloyd lesson?

Figure 8. *Sociogram of the control group after 30 weeks of work.*

Final considerations

1. The teaching-organizational, affective-motivational and intellectual-cognitive factors are expressed in a complex and interrelated form as determining or stimulating ones in the development of creativity of children through sloyd education

2. In the teaching-learning process in the sloyd subject the teaching-organizational factors have been the decisive element in the transition to a way of acting that stimulates the development of creative potentialities of children.

3. A flexible, participatory teaching environment permits the optimization of the teacher's work in the development of creativity and practical skills needed by children; at the same time it makes possible their active participation and engagement in the learning process.

4. A participatory learning environment, respectful with regard to individual differences permits the individual realisation of the motivating influence of the school, and that work and production become, for each individual, a primary source of motivation. Besides, under these conditions the child finds a way to develop his own motivational structure.

5. Guilford's test - at least in the forms tested in this work - do not show adequately the order and determination of the creative potentialities of children for manual work in the sloyd subject. It seems that either the capacity factors, or the abilities related to the modelling of the idea and its practical realisation, need specific consideration in this case.

References

Colectivo de autores, (1990). *Temas de superación. Educación Laboral. Serie IMT 299.* La Habana: MINED.

Eriksson, K. H., Guttormsen, E., Lundberg, T. & Malmberg, K. (1980). *Handicraft and the school. Final Report. The Project "Laborative Handicraft".* Linköping: Linköping University.

Eriksson, S. (1992, March). *The development of sloyd in Sweden.* Lecture at the conference on the XV anniversary of the Pedagogical University of Pinar del Río, Pinar del Río, Cuba.

González, F. (1991). Podemos todos ser creativos? In *Bohemia.* No 45, pp. 15-17.

González, F. & Mitjáns, A. (1989). *La personalidad, su educación y desarrollo.* La Habana: Pueblo y Educación.

González, A. (1990). *Cómo propiciar la creatividad?.* La Habana: Editorial de Ciencias Sociales.

Guilford, J. P. (1959). In *Psicología Educacional III. Aprendizaje.* La Habana: Pueblo y Educación.

Guilford, J. P. (1965). Factores que favorecen y factores que obstaculizan la creatividad. In Betancourt J. *Teorías y prácticas sobre creatividad y calidad.* La Habana: Editorial Academia.

Hattie, J. & Rogers H. J. (1986). Factor models for assessing the relation between creativity and intelligence. *Journal of Educational Psychology.* Vol. 78(6), p. 482.

Heinelt, G. 1979. *Maestros creativos alumnos creativos.* Buenos Aires: Editorial Kapelusz. .

ICCP, (1987). *Estudios realizados con niños de Ciudad de la Habana y Villa Clara.* Departamento de Psicologa Pedagógica. La Habana: MINED.

Johansson, M., Lundqvist, B. O. & Carlberg, A. (1994). *The National evaluation of the Swedish comprehensive school. Craft and design Slojd. The work processes in craft and design – working methds and knowledge. Swedish Board of Education, report no 58.* Stockholm: Swedish Board of Education.

Landau, E. 1987. Motivación a la creatividad. En J. Betancourt Morejn (De.). *Teorías y prácticas sobre creatividad y calidad.* La Habana: Editorial Academia.

Lindfors, L. (1991a). *Slojddidaktik. Inriktning på grundskolans textilslojd.* Helsingfors: Oy Finn Lectura Ab.

Lindfors, L. (1991b). *Slojdverksamhetens grunddimensioner vid arbetsinlärning i ett slöjdpedagogiskt perspektiv.* (Rapporter från Pedagogiska fakulteten 33/1991). Vasa: Åbo Akademi. Institutionen för lärarutbildning.

Lundberg, T. (1974). *Sloyd's areas of interest principles*. Linköping: Linköping University.

MINED, (1987). *Programa de Educación Laboral para 4to. grado*. La Habana: Editorial del MINED.

Moraga Moreno, F. (1987). Creatividad: apuntes para su desarrollo. *La escuela en acción*. Sepiembre-Octubre. Madrid.

Moreno, L. (1993). *Diseño de investigación conducente al grado científico de Doctor en Ciencias Pedagógicas*. Pinar del Río. Instituto Superior Pedagógico de Pinar del Río.

Pomomariov, Y. A. (1976). *Psicología de la creatividad*. Moscú: Editorial Nauka.

Rodríguez, L. (1994, abril). *Comunicación personal*. Pinar del Río.

Sjögren, J. (1987). *Practical work and creative ability*. Linköping: Linköping University.

Torrance, E. P. (1976). La enseñanza creativa produce efectos específicos. Gowan J. C., Demos, G. D. & Torrance, E. P. *Implicaciones educativas de la creatividad*. Salamanca: Ediciones Amaya.

Wallach, M. A. & Kogan, N. (1965). *Modes of thinking in young children*. New York: Holt, Rinchart & Winston.

Article 4 Affective-motivational factors in the sloyd lesson. Influence on the development of creativity

Abstract

The affective-motivational factors have a significative influence on the development of children's creative potentialities through the sloyd activity at school. This article presents the initial results on this regard obtained after three-years' development of a pedagogical experiment with Cuban children from nine to twelve years of age.

The study of the affective-motivational world of children and its relation to their creative work in the workshop provides valuable outcomes to understand and make effective the teaching and learning process in sloyd education. The influence of motivational factors, affective experiences, volitive activity, socio-cultural environment, and gender, during children's creative work in sloyd activity becomes an extremely complex area to deal with. The analysis of the data available is still in an early stage however some initial conclusions in this respect could already be made.

Key words: creativity, motivation, affective experiences, volitive activity, sloyd lesson.

Introduction

Most of the researches carried out in the field of creativity recognise the role of the motivational processes and the affective activity of personality as the basis of creativity (see e.g. Mitjáns, 1995; Johansson, 1994; Sjögren, 1987). It is however admitted that affective-motivational factors have been less studied and also the most difficult to deal with.

Assuming creativity to be an expression of the unity of the cognitive and affective elements in the personality (Mitjáns, 1995), this experiment is an initial approximation to the study of the relationship creativity-affective activity in the specific conditions of children's creative work in sloyd lessons. It was methodologically assumed that the unity of the cognitive and affective elements is the basis of regulative action of personality.

In this study three main methodological variants in organising the teaching and learning process were tested:

Variant A. Combination of children's work in areas of interest with the organisation of the teaching contents in units of studies as stated in the official national syllabus.
Variant B. Work in areas of interest after discussion and agreement between children and the teacher.
Variant C. Free creative work with individual choice of material to use and the article to make, previous discussion with the teacher.

This very last variant came out as an objective consequence of the development reached by children during the research work and became a higher expression of the content of their affective activity. At the same time the work with this variant leads to a re-framing of the teacher's role in the learning process. During the experimental work the principle of priorizing the creative know-how over the technical one was adopted. Children were classified as "more creative" and "less creative" according to results of Guilford tests and judgement criteria[1].

Needs, motives and creative activity in the workshop

Since an early stage in the research work, it became obvious that needs and motives play a leading role in the development of children's creative potentialities. The correspondence between material needs stated by children in a survey and the articles made at the workshop when working with the different variants mentioned above is presented in Figure 1.

[1] See the paper by the author: Teaching-organizational factors in the development of creativity through sloyd lessons.

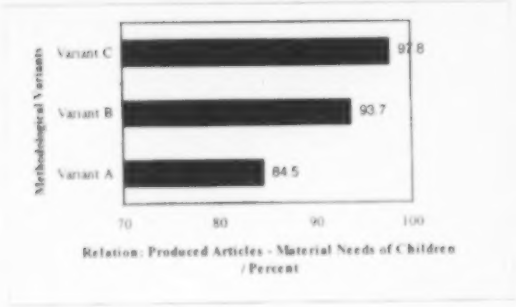

Figure 1. *Relation between material needs of children and their productions in the sloyd lessons under the different methodological variants. The figure shows the percentage of articles corresponding to the needs stated by children in a survey applied at the beginning of the work with each variant.*

An important finding connected with the work of children considered "more creative" was that their work was not always orientated to the satisfaction of material needs. In many cases it was more the need of innovating, of discovering which motivate them.

The study of the production of children in the workshop showed a tendency to reflect the socio-cultural environment surrounding them. In the productions of the girls there was a tendency to make articles traditionally related to the home activity of women, to the role of women as housekeeper and mother. The same regularity is registered with the boys, their articles being very closely connected with the male world around them.

Table I. *Productions of children showing important differences in gender*

Produced Articles	Girls	Boys
WOOD AND METAL		
• Chairs	9	6
• Picture Frames	3	2
• Tables	8	4
• Centrepiece	6	1
• Cars	0	6
• Wagons	1	7
• Swings	1	0
• Houses	14	6
• Toy weapons	1	7
• Beds	2	2
TEXTILE		
• Dolls	11	0
• Animals	2	6
• Masks	0	4

This matter needs further and deeper study of the material available. More than thirty-five years after women's rights and equality became a governmental policy and educational aim in Cuba, the problem of gender in sloyd lesson seems to need a different and deeper approach.

The work in a flexible learning environment brought about an increase in the number of children motivated for the creative activity in sloyd lessons. The opportunity of working in projects of their own choice gave increasing conscious motivation for the activity that was higher during work with variant C.

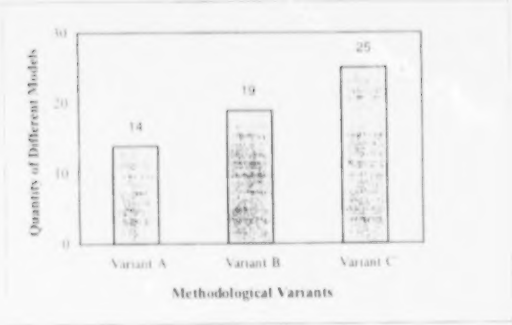

Figure 2. *Variety of articles produced by children in the different methodological variants.*

The relation between personal motives and social motives was carefully followed during the experimental work. It was expected that the assumed organisation of teaching and learning would encourage the personal motives over the social ones which could be a negative consequence according to the general philosophy of the present research work (Moreno, 1994). Figure 3 shows the relationship described above.

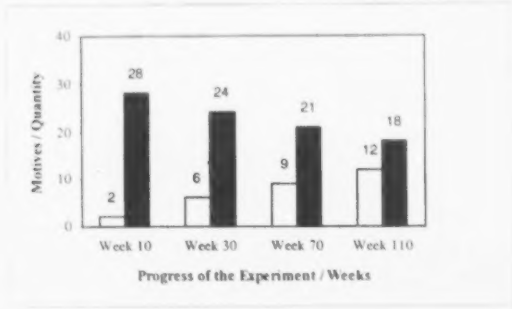

Figure 3. *Description of predominant motives during children's work in sloyd lessons. With white background - social motives, with grey background - personal motives.*

In a first stage of the experimental work there was a predominance of personal motives over social ones. This was followed by a more balanced relation between articles made for personal use and those made with a more social aim (toys to play with in a group, articles to decorate the classroom, etc.). The change from a restricted teaching environment (convergent) to a flexible one (divergent) provoked an explosion of what we call the *non realised potential* of children, which in the beginning made personal motives predominant.

During the creative work it was possible to notice in children considered "more creative" the existence of motives directed towards the creative process in itself; processal motives according to América González (1990). Some of these children wrote in a composition *"I like working in the workshop because when I am constructing, I am inventing and testing if my ideas work or not, I like this very much"*. In these cases the final product was not important but the creative process. These motives have also been found in researches with innovators carried out in Cuba (González, 1990).

When studying the stability of motives in children considered "more creative" or "less creative" it was also possible to see important differences. Children "more creative" were usually more faithful to the initial motive. The initial idea was often enriched but it remained till the end. The drawbacks (Sjögren, 1987; Lindfors, 1991b) in the working process were often due to a wish to enrich the idea in very different ways[5].

The motivational conflicts played an important role when studying the children's creative activity. Two main conflicts were observed: *approximation-approxi-mation* and *approximation-avoidance*. The *approximation-approximation* conflict took place when the pupil had got different ideas of articles to make all of them of the same value to him. To decide became a very difficult task. This kind of conflict was often registered in "less creative" children.

The second conflict mentioned was verified only in one case at the beginning of the experimental work: a girl was very afraid of working with the tools despite of her high production of ideas and her willingness to put them into practice. In the solution of both kinds of conflicts, the role of the teacher was very important in helping to transform them into constructive learning situations.

[5] See the article Teaching organizational factors in the development of creativity through sloyd lesson

Affective experiences (feelings, emotions) and volitive activity in the creative work in the workshop

Recognising that the affective activity has an important historical-cultural conditioning, the environment of the children (the house and the community) was carefully studied by means of interviews and visits to children's homes.

The free work of children allowed an important development of affective experiences. During their creative work an increasing tendency to approach the positive pole of the affective experience was recorded. The solution to technical problems faced during the practical work often leads to emotions manifested in stages of happiness, followed by visible enthusiasm and energy in their further work.

The *signalising* and *regulative* functions of the affective experiences (Colectivo de autores, 1987) were easily registered during the creative work in the workshop. The emotions expressed as happiness at the same time showed the positive character of the activity and also influenced the further work of the children.

The work in projects directly linked to children's interest and needs became the main conditioning factor of the affective touch that the production at the workshop had. The articles made, despite constructive imperfections, acquired a special affective value for the children. The particular care they later took of them, reported by parents, showed its affective meaning.

The results of the experimental work gave important support to the theoretical concept assumed at the beginning of the experimental work in relation to the differences between creative problem and teaching task. The creative problem in sloyd lessons acquires its whole dimension only when its content is integrated into the affective sphere of the children's personality and they assume it as part of the complex of their needs and motives, closely linked to their affective experience.

The study of feeling and its relation to the creative work of children was done considering two main aspects:

- the creative work in the workshop as expression of the children's feelings,
- the creative work in the workshop as a means to form and develop children's feelings.

In relation to the first aspects the techniques used for data collection reflected the prevalence in children of feelings of personal realisation, love of the family and friendship. During their three years work in a creative environment, two new feelings were emerging in the children: the feeling towards creation and the love for the practical work in the workshop. Interviews with parents and children's attendance in the workshop after school hours testify the arising of these feelings.

The interrelation between the stages of creative process, steps of the children's work in the workshop or sloyd process and phases of volitive activity was carefully studied. The study of the volitive activity as a higher level of the motivational sphere (Rubinstein, 1965) is extremely complex. The creative work during the sloyd lesson can be considered volitive activity only when the children direct all their efforts, in a voluntary way, towards an objective-motive clearly defined. Steps of the creative process are closely linked to the phases of the volitive activity.

Table II. *The phases of volitive activity.*

Phases of de volitive activity
• Appearance of the motive – objective • Reflection • Decision • Execution

The phases of the volitive activity cannot be seen as a linear process. It is possible to find halts, regressions, deviations and even omissions of phases. The observations made during the study allow some remarks.

The phase of the *appearance of the motive-objective* has different characteristics depending on each individual. In children considered "more creative" a tendency to independent search and definition of the motive-objective (article) could be observed. They isolate themselves in a usually intensive exploration of their cognitive and affective universe. Children considered "less creative" very often needed important support to find out the motive-objective i.e. to see pictures, modelate with clay and other materials.

During the phase of *reflection* the motive-objective was assessed. Considerations such as: if it was a really valuable product, constructive procedure, use of the technical means available, etc. might occur. This regularity was most of the time valid for "more creative" children. Within the other group there were often conflicts of motives due to the appearance of new ideas.

The phase of *decision* was not relevant in the case of "more creative" children. The new idea was accompanied, from the very beginning, by the decision of realising it in practice. In the cases considered "less creative" there were two different form of behaviour when making the decision:

- the selection between the two or more ideas turned out to be a difficult process in which children usually asked for help from their classmate or the teacher. Most of the time criteria of material available, utilitarian value, etc. were followed for the final decision.
- after a deep analysis of the different motive-objectives all of them kept their inductive power, so it became extremely difficult for the children to choose. Usually the decision taken was to postpone the realisation of one of the ideas without resigning it.

In the phase of execution three main cases were observed:

- Children carried out the whole project until it was finished.
- During the practical work, problems arose provoking doubts about the decision previously taken, even when in most of the cases the idea was completed. In other cases questioning arose leading to important changes in the article design, etc.
- The practical activity with the tools and continuos problems on a higher level than skills or knowledge reached by children, led to a complete resigning of the execution of the motive-objective. This situation was recorded in very few cases.

During the experimental work the main volitive qualities and their appositive were also studied:

- Independence - Dependence.
- Decision - Indecision
- Perseverance - Lack of perseverance
- Self-control - Lack of self-control

Since the beginning of the experiment the "more creative" children showed a significant tendency towards the positive volitive qualities (independence, decision, perseverance, self-control).

On the contrary the "less creative" ones were very dependent on the motivational work of the teacher to overcome their indecision. Signs of lack of perseverance and lack of self-control during their practical work were often reported. While the experiment progressed, especially during the stage of work with variant C, they manifested a substantial evolution towards the positive volitive qualities. In general the changes in the teaching environment markedly influenced the development of the more positive volitive qualities.

Final considerations

- The study of the affective sphere of personality and its relation to the development of children's creative potentialities becomes a complex task. There is nowadays an important lack of a well-defined methodological approach to deal with this problem.
- Children's creative activity in sloyd lessons is to a great extent influenced by affective-motivational factors depending on their individual characteristics.
- Children's work in sloyd lessons testifies to the unity of the cognitive and the affective as basis of creativity. Effectiveness in the learning process demands a balance between both factors.
- The production of children in the workshop as an expression of their affective activity is historically and culturally conditioned. The needs and motives of every child organise and guide their activity.
- The relationship creative process - steps of work in the workshop - phases of the volitive activity require a very dynamic and dialectic study. They are strongly interrelated.
- The experimental work propitiated conditions for the development of children's creative potentialities, which were associated with their positive affective attitude towards creation.

References

Johansson, M., Lundqvist, B.O. & Carlberg, A. (1994). *The National evaluation of the Swedish comprehensive school. Craft and design Slojd. The work processes in craft and design – working methds and knowledge. Swedish Board of Education, report no 58.* Stockholm: Swedish Board of Education.

Colectivo de autores, (1987). *Psicología general para los Institutos Superiores Pedagógicos. Tomos 2 y 3.* La Habana: Editorial Pueblo y Educación.

González, A. (1990). *Como propiciar la creatividad.* La Habana: Editorial de Ciencias Sociales.

Lindfors, L. (1988). *Slojddidaktik. Inriktning på grundskolans textilslojd.* Helsingfors: Oy Finn Lectura Ab.

Mitjáns, A. (1995). *Creatividad, personalidad y educación.* La Habana: Editorial Pueblo y Educación.

Moreno, L. (1993). *Diseño de investigación conducente al grado científico de Doctor en Ciencias Pedagógicas.* Pinar del Río. Instituto Superior Pedagógico

Moreno, L. (1994). *Los factores docente-organizativos en el desarrollo de la creatividad a través de la clase de Educación Laboral.* Pinar del Río: Instituto Superior Pedagógico de Pinar del Río.

Rubinstein, S.L. (1965). El ser y la conciencia social. En *Psicología General para los Institutos Superiores Pedagógicos.* Colectivo de autores.

Sjögren, J. (1987). *Practical work and creative ability.* Linköping: Linköping University.

Appendix

Letters addressed to Otto Salomon by Swedish sloyd teachers and Cuban educational authorities at the beginning of the 20th century[1].

- Letters from Aron Heidengren

The letter which follows refer to a singular incident in the early stage of the introduction of sloyd in Cuba which has been presented by Thorbjörnsson (1990, p. 75) in the following terms[2].

"Vit slavhandel"

På inrådan av Salomon hade de cubanska myndigheterna utsett läraren vid Teachers Training College, New York, L. L. Summers (Nääskurser 1900 och 1901) att organisera slöjdundervisningen på ön. Summers och Heidengren inbjöd en svensk lärarinna att undervisa vid en cubansk skola. Den unga lärarinnans föräldrar gjorde efterforskningar och brev gick till den norske konsuln i Havanna med förfrågningar om Summers var "Slojd inspector" på Cuba. Konsuln läste "Sloyd" som "Lloyds" i det handskrivna brevet och meddelade att Summers ingalunda var Lloyds inspektor utan verkade vara en allmänt skum person. Historien kom ut i pressen och i en rad artiklar beskylldes Summers och Heidengren för vit slavhandel - och även Salomon fick del av obehaget. Ivriga dementier av Salomon i de svenska tidningarna hjälpte knappast för att blidka de ursinniga Summers och Heidengren.

"White Slavery"

On advice by Salomon the Cuban authorities had chosen the teacher at the Teachers Training College, in New York, L. L. Summers (who attended course at Näas in 1900 and 1901) to organize the sloyd education at the island. Summers and Heidengren invited a Swedish female teacher to teach in a Cuban school. The young teacher's parents did some inquiries and letters were sent to the Norwegian consul in Havana asking if Summers was a "Sloyd inspector" in Cuba. The consul read "Sloyd" as "Lloyds" in the handwritten letter and informed that Summers by no means was a Lloyds inspector but seemed to be a suspect person. The history came out in the media and in a number of articles Summers and Heidengren were accused of white slavery - and even Salomon was unpleasantly affected by it. Eager denials of Salomon in the Swedish newspapers hardly helped to appease the furious Summers and Heidengren.

[1] The letters are kept are Goteborg Lands Arkive. Hans Arvidsson, assisted by Harry Arvidsson former Head of the Department of Craft and Design at Linkoping University, Sweden, has done the translation from Swedish language. The translation has respected the style of the original.
The presentation of the letters is ordered considering the level of influence in Cuban sloyd of the different Swedish teachers.

[2] Translated by Camilla Oster, Faculty of Education, Åbo Akademi University.

BEST COPY AVAILABLE

Escuela "Luz y Caballero", Habana 29-12-1901

Mr. Managing Director!

How will I ever be able to thank you for what you have done for me regarding the business of the Consulate, and for what you have sent me. Therefore, please accept my innermost and dearest thank you. I think that Mr. Summers will be happy and most grateful when he is told that there was such a happy ending. Mr. Summers was not happy at all with me when I did not want to send him all the papers about the scandal- I had only 2 copies of Göteborgsposten and Göteborgs Handelstidning, which I sent to him. That was all I could do. He thought that the articles had different contents, so he was mad at me for going to the Consul. He says that he is the only one that was insulted and resurrection is his alone. I would have no problem with him dealing with the issue alone, but he denied me a personal meeting in Milwaukee where we could have dealt with it face-to-face. So I decided to go to the Consul myself and demand resurrection for both of us in the form of an official denial in Swedish newspapers. The Consul promised to do so as soon as the General Consul returned from the United States in October. However, he did not return until the end of November so that is probably the reason that nothing has happened yet.

The sketches that you so kindly sent me are very good, both in contents and format and should be very well accepted by all friends of sloyd. A revision with not too big intervals is probably both healthy and useful when it is done for the better, as these are. We now have 2 weeks of vacation, which me and my friends are using to finish our book about sloyd. We hope to finish it now so that it can be published in early spring.

The future of sloyd here is looking dark, in the beginning of the semester we sent a requisition for necessary materials for sloyd but we got no answer. So we sent a new one in the middle of November, the school council answered that they had yet to see some results of what they gave us money for. This is because they never visit the school, they also had no money granted to sloyd and yet, they have given 3 sloyd-teachers contracts for 1 year- that is kind of peculiar, is it not?

We have now sent a complete report of what has been done this year, we have also tried to explain the importance of sloyd for the children and how other countries encourage this. We hope this will open their eyes, if not we will have to cancel classes due to lack of materials to work with. I have during the past semester bought materials and paid with my own money, but that can not go on forever. I have on my spare time made cupboards and wall-racks and whatever

is necessary in order to keep the classroom from not looking like a junkyard. On top of that the school-council has requested me to make frames for their photographs and paintings. I will not do that anymore if they do not allocate some money for our materials.

The temperature has the last couple of days dropped to 20 degrees Celsius and the children are terribly cold, especially the poor, there are thousands that has never wore a pair of socks. The clothes they do have are very thin cotton so it is very hard for them in wintertime. They are not very strict about celebrating Christmas; Christmas day looked very much like any other day with all kinds of work going on. Not so during fast when people take two weeks to do all kinds of crazy things. The Cubans are generally lazy and consider work to be for the oxen and Negroes. It is a fact that the latter and immigrants from other countries do almost all work.

This concludes this letter and I would like to wish you and your family a happy and prosperous New Year.

With great respect

Aron Heidengren

Escuela "Luz y Caballero", Habana, Cuba, Aug. 31st 1903

Mr. Managing Director Salomon!

The reason I have not been heard from is that I have not had anything of interest for you to tell. You must have thought that I was no longer in Habana! I would hereby like to declare that I got re-hired for another year and that outside of my usual duties, I have to inspect two new sloyd schools that are to be opened on the 14th when the academic year starts. One of these is at the University and the other in the second biggest public school. This is the result of the success, if I may call it that, that sloyd made this summer in the normal school where it was non-compulsory. The class involved 30 students, 40 had reported interest, some of which became ill and a few who got tired of it. We worked every day between 8-10 in about 30-36 degrees Celsius. Even the students found it hard to work and there was hardly one day without ?[1].

The manuscript for the book about Sloyd methodology in Spanish is now at Appleton in New York awaiting its judgement, I hope to hear from him soon if he wants to buy and print it.

I received a letter from a Mr. Åberg in Boston in which he said that he had heard of me working with sloyd here on the island. He wanted some information, but with the scandal from last year still fresh in mind, I could not give all the information he wanted in order to avoid further inconveniences.

Mr. Summers has not been heard from for a long time, I hope he is not still mad at me and I also hope to see him at the exhibition in St. Louis which I intend to visit. I suppose Mr. General Manager will send a beautiful collection of your models.

Together with this letter I send a photography from our sloyd class, regrettably everybody was not present, along with a paper with information about the normal school.

The athletics teacher at our school asked me to get him a copy of Prof. Lings system. I mean a book, preferably illustrated, containing Prof. Lings system. I wrote to the CentralInstitutet and Prof. Torngren but got no reply so I turned to a friend in Helsingborg. He wrote that for the time being it was sold out everywhere, so he would try at used books-stores but I doubt that he will be successful. Perhaps Mr. Managing Director would be kind enough as to give

[1] Unreadable word

me some advice of where to turn as well as what part is of interest to Swedish athletics.

I have to stop now and would just like to say that that I like it here, I am in good health and I would very much like to stay here for many years. Cuba is despite its poverty a fantastic country, and the Cubans are a lot better than their reputation.

With great respect

Aron Heidengren

Cuarteles 9, Habana, Cuba, 01-03-1904

Mr Managing Director!

Thank you from myself and Åberg for your kind postcard. We have now finished the exhibition pieces and they will be shipped to St. Louis in a couple of days. Åberg and I have done half of the objects each, in addition we are sending some of the children's work and their drawing books. This past Saturday I had an extra exhibition in my school. I had invited the superintendents of Minister [illegible], and the exhibition-commission to see the work before we send them off to St. Louis. Everybody showed up and in Cuban tradition I was praised for the work and I got the Big medal; it does not mean that much to me but the Minister is a trustworthy man and he is a big friend of the school. He said, "He was very pleased" and promised to solve some problems at the school, namely the lack of materials and cupboards. It is now looking like the two new sloyd schools are really going to be open in town which I mentioned in an earlier letter. New tools have already been ordered. I am also going to teach one of the professors at the University every Saturday so that he, in turn, can teach the students.

My manuscript is going to be published shortly, the biggest and foremost publisher has offered to do so. I left the manuscript at the vice-minister and asked him to read it and give it his approval if he liked it. It was in the paper that "The ministerium considered the book to be useful in school" - the clipping shows this.

Together with this letter I am sending a packet containing sketches of the models that we used here, I have called it "Sloyd Cubano" - after Swedish model -. I would be very grateful if Mr. Managing Director could look at the sketches and if you find something good, please write me with your opinions. This is not for my own interest but rather in the interest of sloyd. For it to become more realised here in Cuba, which is also the purpose of the book. I am sorry that the sketches are not better and that they are not in frames but my time is very limited, as soon as the book is finished I will send you a copy.

With great respect

Aron Heidengren

[illegible] Unreadable name

Habana, 02-11-1906

Mr. Managing Director!

My warmest gratitude for the postcard. I had a fairly nice 17-day trip over here and got here on the 25th of September. The sight that met me on my arrival had all the signs that something terrible had happened. The harbour was full of American warships and on the streets American soldiers were patrolling. You could also see the sadness in the faces of the thinking Cubans -as few as they are- over what happened. This now overweigh, unjustified revolution could maybe cost the Cubans their freedom forever, as well as many casualties and money losses in the millions. And accidents rarely happen alone, a couple of weeks ago a terrible hurricane drew over the western part of the island and inflicted tremendous damage. It happened in the night and in the morning you saw houses destroyed and people beaten to death by the hurricane, around 20 in Habana. The parks looked like devastated forests, only the palm trees were still upright. In the harbour there were a lot of shipwrecks, it was a terrible sight and damage in the millions. In my school the windows had blown in and rain had got inside and destroyed quite a lot. Even so, the damage can be fixed and it would not take that long if the people just got to it, this is a very rich country.

The new Governor, Mr. Magoon, is now placing American officials in all the departments and probably in the educational department too, which means it is all up to them if sloyd is to win new ground. Sr. Pérez who was at Nääs is now in Santa Clara where a new sloyd workshop has been established. We are now six in all on the island. I have asked high officials to write you about getting two more, one in wood and one metal. I thought about Mr. Johansson (the musician at Nääs) for metal-sloyd as he has studied engineering and could get into the subject quickly.

The other day I had the pleasure of meeting Ms. J. ? [1], the future Mrs. Aberg, on her way to Cienfuegos. She was very happy to be so close to her destination.

Please give my best to your family and yourself!

With respect

Aron Heidengren

[1] Unreadable name

- Letters from Charles Åberg

Boston 31-08-03

Managing Director
Mr Otto Salomon!

Last week I got a letter saying that I got the job, enclosed was a contract and an authorisation to pick up a first class ticket at the offices of Bard Lines in New York. I do not have to be in Cuba until the 14th of September. I leave Boston today for New York, I leave New York for Habana on the 3rd of Sept. and I will reach Cienfuegos the 9th of Sept.

I will now see if I can do what I have undertaken. "No shame in trying, but shame on him who never tries."

In New York I hope to meet with Mr. Carlsson, he said to say hello, I met with him the other day.

At last, a big thank you for the job you got for me. Give my regards to Naas. I will be in touch when I get to Cuba

With great respect
Charles Åberg

Cienfuegos, 20-09-03

Bäste Managing Director
Mr. Otto Salomon!

I would like to extend my warmest gratitude for getting me this job. The trip down here from New York was very pleasant, I arrived at 7 p.m. The same day I met with the secretary[7] Leopoldo Cancio, the next day I was at,his office, got my contract testified, and I also received a train ticket to Cienfuegos.

I met Mr. Heidengren and enjoyed his company there for a day and a half, I am very grateful for the information he gave me about the conditions here in Cuba. He also gave me some sketches of the models he uses in Habana. He has made a series of models with methodics which is coming from the publishers soon. He is supposed to start his teaching on the 19th after his three-month vacation. During the summer a course in sloyd has been held in Habana for teachers similar to that in Sweden. Mr. Heidengren has had one hour a day with the 30 participating teachers. This semester he is acting like an inspector in Habana where there is a lot of sloyd-teaching going on, he asked me to give Mr. Managing Director his best when I wrote.

My trip from Habana went well but was a tad boring because I had to change trains once. I left Habana at 7 a.m. on the 9th and came here at 5.30 p.m. I was too tired to look up the super-intendent then, so I did that the next morning. He is a very kind man who speaks good English, which is good because he is the one I turn to in school matters.

The sloyd-room is very big and has enough room for 44 benches, the tools are also very good but a bit rusty since they have not been used since Lundgren left. Of the models he had made none remain so I have my work with making new models and restoring the tools. On the 14th school started so I have now had a week of teaching, I had to start with teaching the children how to use rulers and compasses, most of them have never used these instruments. For me to do all the teaching by myself would be impossible, therefore I have an assistant. He does not, however, speak much English but with the aid of a dictionary I can make myself understood and he in turn talks to the children.

Soon when I "get into things" I am certain it will go better, how I will like it here is hard to say at this point, but I think I will like it. Cienfuegos is a very beautiful and friendly little town. The heat is not that bad, around noon it is very hot but there is almost always a wind. The evenings and nights are very "fresh".

[7] Secretary of Public Instruction of the Cuban government

Since I came here it has rained about an hour every day around 5 p.m. In the winter, I am told, it does not rain at all.

I will keep in touch further on, until then it is goodbye, give my best to everyone at Nääs. Lastly, my best regards to you Mr. Managing Director.

With great respect
Charles Åberg

Hotel Union
Cienfuegos, Cuba

Cienfuegos 08-06-1904

Mr. Managing Director Otto Salomon!

Firstly, I would like to apologise for the time passed since my last letter and I hope that you are in good health and everything else that God gives in his grace. Secondly, I hope you do not think that I have not written out of forgetfulness or indifference, as you probably understand I have had a lot of work to do. I have had eight classes with about 30 boys each, these I have taught basically alone since my assistant for the first had no sloyd experience, secondly he knew no English and thirdly he was very lazy. For these reasons he will not continue as my assistant next year. Outside of classhours, I have worked morning afternoons and nights with the tools and I have made some betterment of the classroom. I have also made models and sketches, I have made almost two series of models. I use basically the same series as Mr. Heidengren in Habana. One serie consists of 28 models with some parallel assignments. Me and Mr. Heidengren has made a series together for the exhibition in St. Louis, I did the first 20 numbers, Mr. Heidengren made the rest and the sketches.

While I had no more than two months to let the boys work for St. Louis, I had to give extra classes for the 12 most talented students, I got a small but good collection of models and sketches. Before I shipped them off, I had a small exhibition of all the work done here in Cienfuegos. It drew a lot of attention and I was praised by the school board, but the most pleasing thing was that I could say that the boys had made their models themselves which was not the case with the sketches and written tests, which completely or in part was made by the teachers.

In my spare time I have been studying Spanish and I am now able to manage some, so next semester language should not be such a big problem as it has been this past year.

On the 10th last month we had an exhibition of what we had done last year. It was very well received and particularly the bishop was interested when I described the models and methods. On the 20th through the 22nd there was an examination for about 400 teachers from some of the towns and the countryside of the Santa Clara province. The 25th was a big day for my students: they got to bring their models home.

Despite difficulties I have settled in pretty good. I have done what I set out to do: to build the interest of this school council and students for sloyd; the boys are particularly fond of sloyd. I am enclosing a photo of a workshop, please

excuse the poor quality but it is all that is available. The newsletter that I enclose is published by students at the same school. I am sorry but No.2 was not available. I hope to be able to send it later on. In issue No. 4 on page 4 under the headline "Un junio atariado" *(a busy June)*, is a quote from a referral of this school in a Mexican newspaper. In issue No. 6 on page 3 there is a short summary of the main purposes of sloyd, by me.

The reason for not writing to you as soon as school was over is that I have been on the countryside with a friend of mine. I am now back but will probably go out to the coast to a place, which is a bit cooler because Cienfuegos is now extremely hot. Next month I will probably go to Habana to visit Mr. Heidengren. He is currently in St. Louis from where I have received a postcard.

I am and have been in good health and would like it better here *if* Cienfuegos were not so boring. I am also giving the best from Ms. Jonatansson and Ms. Gerda Wahlberg from which I have got a letter recently.

I want you to give my best to people I may know at Näas. I have had to neglect a lot of them due to lack of time to write.

Lastly, many regards to yourself and your family.

Respectfully yours
Charles Åberg

Cienfuegos 14-09-1906

Mr. Managing Director!

It has been quite a while since you heard from me, the reason is not forgetfulness because not a day goes by that I do not think about what you and Nääs has meant to me.

The last few days those memories are becoming more vivid since the arrival of Sr. Pérez. He, as all others who has been to Nääs, can not find words to describe you and Nääs. For him your and the students friendly treatment of him was wonderful; because of his race he is not respected here as he was in Sweden. For me Sr. Pérez is one of the finest Cubans that I have met, if everyone were like him Cuba would not be in this conflict that it is. Sad to say, there is a lot of people here who are selfish and are only concerned with their own well-being rather than that of their country.

The current situation here is sad, as of yet the revolutionaries has not had any big confrontations with the gendarmes, but if the conflict is not resolved soon there will most likely be a bloody civil war which will ruin this evolving country. At present, Cienfuegos is cut off from the rest of the country because the rebels are holding all roads and railroads between Cienfuegos and Santa Clara. There is, however, a link to Habana in the form of a boat once a week.

When I last week travelled by train from Habana we were stopped several times and searched, some horses and the official priest were taken. Palmira, about 7 miles from Cienfuegos, is the Headquarters of General Guzman, he commands 4500 troops which have surrounded Cienfuegos. On the 5th there was a battle with the gendarmes of Cienfuegos which started just outside Palmira. The latter lost 12 men and had 3 wounded, they were driven back all the way to Cienfuegos. The rebels had 3 casualties and 18 wounded.

Three nights this week, gunshots has been heard outside of town, so far no one has been killed or hurt. It is expected that the rebels will attack Cienfuegos any day now. To defend town there are 800 gendarmes, about 500 volunteers, and one battery with 4 machineguns cannons. The rebels, who represent the liberal party, have started this revolution to protest against the government's misuse of power during the last elections. Their anger surfaced when their foremost leader, the skilful and popular attorney Enrique Villuenda, was shot to death by the police during a meeting with his closest *compadres* here in Cienfuegos, among these was one of our school board representatives, Dr. Perna.

Unclear number

As of now, the rebellion has only reached three provinces: Habana, Matanzas, Pinar de Rio and Santa Clara. On the 30th of August I got orders from our secretary in Habana, Mr. Lamar to go there immediately to buy new tools for our two new sloydschools, that I in November last year proposed to open. One of which is in Santa Clara and the other one here in Cienfuegos. I made the cost estimates send it back, and hoped that they would be passed in time so I could set them up during Christmas vacation. Sadly, they were put aside to be dealt with "mañana" which in Cuba usually means in a distant future, but "better late than never".

The costs I used for my estimate I took from a hardware store here in Cienfuegos, they were cheaper than those in Habana so I bought everything here in Cienfuegos. The workshop here is an old one which only needs small adjustments to be sufficient.

For the teacher position in Santa Clara I hope they name Sr. Perez, if he does not get it is solely because he is of a different race than us. He is the only sloyd teacher in Cuba, and accordingly, no one is more qualified than him.

On the 10th all schools opened with a few exceptions in the countryside. I had decided to leave Cuba this year, when they found out they would not let that happen. They promised to open the new workshop and put me in charge of it with a 25 Dollar increase in pay per month. That made me change my mind. During summer school I gave a series of lectures and classes in sloyd. On the last day of classes we had a very nice party. Where, among others, Dr. Trujillo gave a speech about Sweden, where at the time the first Cuban teacher was to study the world famous sloyd system of Nääs and how well he was received and being taken cared of. He finished with a toast to Nääs, its intelligent Managing Director, and to the Swedish representative: the insignificant yours truly.

Mr. Managing Director, it is in times like these that I am proud to be Swedish and even more so to have been your student. I hope to interest three teachers from Cienfuegos to go to Nääs next year; even our president Pedro Hernández is thinking about applying for the next gardening course at Nääs. I would therefore like to ask you to send me prospects of next year's courses as soon as they are finished.

I have decided, provided that the rebellion does not grow, to bring my fiancée here next month, and if everything goes as planned we hope to be married in November. As many other things, I owe my beloved fiancée to Nääs as well.

We both hope that in a not too distant future we could come to visit you at Nääs, where we got to know each other.

I am sorry for taking so much of your time with this long letter.

Yours truly, respectfully *bla bla bla* and so on forever!

Charles Åberg

- Letter from Anna Whalberg

26, Enramada
Santiago, Cuba

May 4th, 1901

Managing director & knight Mr Otto Salomon:

I think that everything that concerns sloyd is of interest to Mr Salomon, therefore I am taking the liberty of writing a few lines about the work that has been started in Cuba.

Ever since the war ended (Spanish-American), and the American occupied the island, major improvements in many different areas has been done. Here, as everywhere where the conditions have not been the best, hope is set to the younger generation. With this in mind, the Americans are working towards improving Cuban schools. "The Cuban Orphan Society" in New York has, since the war ended, made significant contributions towards better schooling. This "society" has also brought sloyd and kindergarten to the foremost cities on the island.

I came to Santiago del Cuba in February to introduce sloyd on this part of the island. I was offered this job by Mr Gustav Larsson in Boston and came here after only one week of work. Since October I was "a normal student" of Mr. Larssons excellent sloydschool and it is through his hard and never-ending work that sloyd has enjoyed such success in America.

The value of sloyd - Swedish sloyd - in Cuba is easy to spot. The Cubans are lazy and dull (to a big extent probably due to the climate), and pretty content with below average results whatever they undertake. Proof of this is everywhere, houses are poorly constructed and built, finding a right angle is virtually impossible. The Cuban children are very intelligent and I am very pleased with my classes. They are extremely willing to learn and tremendously fond of sloyd and once they realised that I prefer thoroughness and precision in their work they tried their very best to do so. I teach 104 children (ages 8-17) divided into a number of classes, 16 of these children are girls. Our classes are 1.5 hours but I intend to prolong them to 2 hours twice a week.

When I came here I brought benches and tools from Boston for 20 children. Kindergarten and sloyd are in the same building and is called "Escuela Americana" by the town inhabitants.

Santiago is an old, picturesque town with small houses painted in bright colours, palm trees and banana plants. The surroundings are very beautiful with big mountains and the entrance to the harbour somewhat resembles the one leading in to Stockholm. "Morro Castillo" with the Hobson cell is, of course, a very interesting place since the war. The sunken "Merrimack" is now removed from the entrance making it clear for traffic.

A railroad is currently being built between Santiago and Nipe Bay. It is most likely that Nipe Bay will become a prominent area once the communications are in place. So far it is wilderness. It is very hot here and a shortage of water. The rainy season starts this month and goes on through November with increasing strength. School ends around the 1st of June and we are hoping to return to America for the summer on the 8th.

Please give my best to Mrs Salomon and I apologise for my rudimentary letter.

With great respect

Anna Ulrika Wahlberg

- Letter from J.M. Lundgren

Floda. April 1903

I received your letter today and would therefore like to tell you the following: About a year ago I got this job in Cuba with promise of a high salary, which at my arrival had gone down to 70 Dollars per month. It is quite obvious that us "Northerners" are not meant to be in such climate that Cuba offers. It is way too hot down there and whatever the papers might say the yellow fever and malaria are festering, as well as other deadly diseases. You can attenuate your blood with lemon acid before going to bed, but nevertheless, it is extremely dangerous. The personal safety is not the best either. Cienfuegos is, as you probably know, located on the south coast, and therefore a lot warmer than, for instance, Habana and Cardenas. As far as language go, you will not be able to manage with English. Not one of the other teachers knows it and none of the children either, all teaching and talking is done in Spanish. To go there with no knowledge in this language is not something I would recommend. Your position as a teacher is very uncertain, your contract is only for a year.

There is no way you can stay in Cuba when the heat comes, you have to go to America. That, however, is very expensive. Lodging alone will cost you about 30-60 Dollars/month. White clothes are usually necessary and clothes- and laundry will cost you a lot of money since you have to change twice a day due to the heat. Your salary has a tendency to disappear and you have no idea as to where. This letter might seem to be pessimistic, but I feel obligated to tell the truth. It is also important to be prepared for setbacks and it requires utmost energy and an iron will to manage. Advice is always hard to give. You could possibly make it good but I would never recommend anyone to risk life and limb for a meagre salary which you have no guarantee of keeping. Perhaps you can contribute to the cleaning up of towns where (ridan är indraget ?*). This is important for the wellbeing of the people, and this is a lot more important than the teaching of sloyd. The day might not be too far away when the money for sloyd is taken away. When I signed my contract it was the American government that paid the bills, now you would have to sign with the Cuban government.

Please inform me as to what you decide.

With respect and friendship

M. Lundgren

* Unclear expression

- *Letters from Leopoldo Cancio, Cuban Secretary of Public Instruction (Minister) at the beginning of 20th century.*

REPUBLICA DE CUBA

SECRETARIA DE INSTRUCCION PUBLICA

OFICIO DE INSTRUCCION PUBLICA

C. R. No. 36-3.

E. A. Havana, Cuba, march 10th, 1903.

Herr Otto Salomon,

Naas,

Flada Station,

Sweden.

Dear Sir:-

In the month of January, 1903, you had the kindness to help Lieut. Matthew E. Hanna, then Commissioner of Public Schools of the Island of Cuba, in securing him the services of a Sloyd teacher, and now I take the liberty to request your assistance in the same capacity.

For the next school year, beginning September 1st, 1903, there will be at the City of Cienfuegos, in this country, a vacant position for a Sloyd teacher, with a salary of $100.00 per month, subject to a contract beginning on September 1st, 1903 and ending August 31st, 1904. Should you know of any capable man that you can recommend to fill this position I would kindly request you to let him know of this offer, informing me if the same will be accepted.

Hoping that you excuse the trouble I am thus giving you, and awaiting an early reply, I remain,

Very respectfully,

Leopoldo Cancio

Secretary of Public Instruction.

BEST COPY AVAILABLE

REPUBLICA DE CUBA

SECRETARIA DE INSTRUCCION PUBLICA

C. R. No. 36-3.

E. A.

Havana, Cuba, May 14th, 1903.

Herr Otto Salomon,

Nees, Flode Stetic,

Sweden.

Dear Sir:-

I have the honor to acknowledge receipt of your esteemed letter dated April 4th, and in reply beg to inform you that if you can finally recommend a Manual Training teacher for the City of Cienfuegos, this Department will pay his traveling expenses from New York to Cienfuegos. His contract will be signed on his arrival and he should be at his destination not later than September 1st, 1903.

Awaiting an early reply, I am, dear Sir,

Very respectfully,

Leopoldo Cancio

Secretary of Public Instruction.

I beg to inform you that Mr. Mayo who has been a teacher at N for several years and a person whom I can strongly recommend is willing to take the engagement as Manual Training teacher in C if the Department is willing to pay him the money for his travelling expenses. His address is - - - - and I beg you

BEST COPY AVAILABLE

REPÚBLICA DE CUBA

SECRETARÍA DE INSTRUCCIÓN PÚBLICA

INSTRUCCIÓN PRIMARIA

E. A.

Havana, Cuba,
May 26th, 1904.

Herr Otto Salomon,

Naas, Floda Station,

Sweden.

My dear Sir:-

Last year you had the kindness of recommending to me Mr. Charles Aberg as a good Sloyd training teacher and on the strength of your recommendation I employed him for the City of Cienfuegos with a salary of $1,200 per year. His work has been so satisfactory that he will be employed again next year with the same salary and at the same place.

It being my intention to establish another Sloyd training class room next year, I take the liberty of requesting you to kindly inform me if you know of any other competent teacher of Sloyd who may be willing to come to Cuba and sign a contract to render his services for a year under the same conditions as Mr. Aberg. This Department will cover cost of transportation from New York to Havana and return.

Hoping that you will kindly give your attention to this request, I remain, awaiting your reply,

Very respectfully,

Leopoldo Cornú

Secretary of Public Instruction.

BEST COPY AVAILABLE

Publikationsserier vid Pedagogiska fakulteten

Beställningsadress: Pedagogiska fakulteten vid Åbo Akademi
Redaktionsrådet
PB 311, 65101 Vasa, Finland
Tel: +358-(0)6-3247 111
Fax: +358-(0)6-3247 302

Rapporter (blå serie)

1/1992 Lindfors Linnéa. Formgivning i slöjd. Ämnesteoretisk och slöjdpedagogisk orienteringsgrund med exempel från textilslöjdsundervisning. Pris 40 mk.

2/1992 Björkqvist Ole (red.). Forskning och utvecklingsarbete i de matematiska ämnenas didaktik. Pris 35 mk.

3/1992 Östern Anna-Lena. Språkglädje och språklig medvetenhet. Träningsprogram för språklig medvetenhet. Pris 20 mk.

4/1993 Grönholm Maija. TV on pang pang - verbisanaston kehitys toisen kielen kirjoittamisessa. Pris 60 mk.

5/1993 Malmberg Lars-Erik. Självuppfattning. Några teoretiska aspekter och empiriska resultat. Pris 20 mk.

6/1993 Myrskog Gunilla. Lärarstuderandes tankar om inlärning. En studie av lärarstuderandes uppfattningar av inlärning i relation till olika kontexter inom lärarutbildningen. Pris 35 mk.

7/1994 Heilä-Ylikallio Ria. Mönster i förskolbarns möte med skriftspråket. Pris 40 mk.

8/1994 Björkqvist Ole, Finne Lena (red.). Matematikdidaktik i Norden. Pris 35 mk.

9/1994 Östern Anna-Lena. "Sol, sol! - Jag vill va' solen!" Kontextbyggande och perspektivbyten i barns berättande och drama. Pris 40 mk.

10/1995 Sundqvist Rolf. Didaktiskt tänkande. En studie om uppfattningar av undervisning. Pris 35 mk.

11/1995 Stolpe Lisen. Förskola i skola. Förskoleundervisning i ett förändringsperspektiv. Pris 30 mk.

12/1996 Eklund Marita. Samundervisning i gymnastik. En undersökning av gymnastiklärares erfarenheter av och attityder till gemensam undervisning av flickor och pojkar. Pris 40 mk.

13/1996 Ström Kristina. Lärare, försvarsadvokat, lindansare eller .... Speciallärarens syn på sin verksamhet och roll på högstadiet. Pris 40 mk.

14/1997 Lindfors Linnéa. Slöjdfostran i kulturkampen. Del IV. Positionsbestämning av slöjdpedagogisk forskning. Analyser av lärdomsprov vid Åbo Akademi. Pris 40 mk.

15/1997 Nygren-Landgårds Christina. Slöjdfostran i kulturkampen. Del VI. Det tänkta och det upplevda undervisningsämnet. En studie om undervisning i slöjdpedagogik. Pris 35 mk.

16/1997 Hansén Sven-Erik. "Jag är proffs på det här". Om lärarens arbete under en tid av förändring. Pris 37 mk.

Publikationer (grön serie)

1/1992 Stormbom Jarl. Läraren, professionen och didaktiken - några observationer i ett både teoretiskt och praktiskt problem. Pris 35 mk. Slutsåld.

2/1993 Uljens Michael. Den pedagogiska flugan - en analysmodell för didaktiskt handlande. Pris 10 mk.

3/1993 Ström Kristina. Speciallärarnas arbete på högstadiet. Pris 25 mk.

4/1993 Lindfors Linnéa. Slöjdfostran i kulturkampen. Del I. Studier i den finländska skolslöjdens läroplaner 1912-1994. Pris 35 mk.

5/1993 Myrskog Gunilla. Lärares tankar om studerandes inlärning. En studie rörande uppfattningar av studerandes inlärning bland lärare vid Vasa svenska hälsovårdsläroanstalt. Pris 25 mk.

6/1993 Wörlund Kate. Modeller för integrerad specialundervisning i finlandssvenska högstadier. Pris 35 mk.

7/1993 Vestergren Lilian. Logiskt tänkande och begåvning - effekten av träning av logiskt tänkande och problemlösning samt en analys av kvalitativa skillnader i tänkande och tankestrategier hos barn. Pris 25 mk.

8/1994 Björkqvist Ole. Utvärdering av matematikkunskaperna i årskurs 9 i grundskolan. Pris 20 mk.

9/1994 Uljens Michael (red.). Studier i inlärning, undervisning och utvärdering. Pris 30 mk.

10/1994 Finne Lena. Det matematiska klassrummet. Pris 15 mk.

11/1994 Sundholm Mikael & Finne Lena. Det globala klassrummet. Pris 38 mk. Slutsåld.

12/1994 Östern Anna-Lena, Backas Ingegerd, Sarling Isabella. Dramatisk improvisation. Ledarens metodik och pedagogiska grundsyn. Pris 30 mk.

13/1994 Östern Anna-Lena (red.). Evaluering i modersmålet - nordiskt perspektiv. Pris 40 mk. Slutsåld.

14/1995 Eriksson Anna-Lena, West Anna-Lena, Hannus-Gullmets Britta. Dövskolan i Borgå 1946-1993. Pris 25 mk.

15/1995 Palmberg Irmeli. Natur och miljö i didaktiskt perspektiv. En bibliografi. Pris 28 mk.

16/1995 Björkqvist Ole. Utvärdering av matematikkunskaperna i årskurs 9 i grundskolan, del II. Pris 20 mk.

17/1995 Uljens Michael. Att förklara utbildningsplaner. Två strukturekvationsmodeller analyserade med LISREL. Pris 20 mk.

18/1995 Grönholm Maija. Landsomfattande prov i finska i årskurs 9. En utvärdering av de svenska högstadiernas resultat våren 1994. Pris 20 mk.

19/1995 Malmberg-Tulonen Eva. Slöjdfostran i kulturkampen. Del III. Skolslöjdens betydelse ur elevperspektiv. En lokal undersökning. Pris 25 mk.

20/1995 Lindfors Linnéa. Slöjdfostran i kulturkampen. Del II. En översikt av slöjdpedagogikens utvecklingshistoria i ett finländskt perspektiv. Pris 30 mk.

21/1996 Grönholm Maija. Landsomfattande prov i finska i årskurs 6. Pris 25 mk.

22/1997 Östern Anna-Lena (red.). Att växa som handledare. Studier i utveckling av professionell kompetens. Pris 40 mk.

23/1997 Björkqvist Ole. Utvärdering av matematikkunskaperna i årskurs 7 i grundskolan. 25 mk.

24/1997 Hansén Sven-Erik (red.). Att söka och undersöka. Om utbildning, undervisning och ämnesinnehåll. Pris 30 mk.

Studie- och undervisningsmaterial (grå serie)

1/1992 Östern Anna-Lena. Språkglädje och språklig medvetenhet. Uppleva, tala, tänka. Lekar och övningar för en- och flerspråkiga barn i åldern fem till åtta år. Pris 35 mk.

2/1993 Stolpe Lisen. Förskoleundervisning i grundskolan. Mål, innehåll, verksamhet. Handledningsdokument för planerare. Pris 25 mk. Slutsåld.

3/1993 Palmberg Irmeli. Cytologi-genetik-evolutik. Övningar. Pris 30 mk.

4/1993 Malmberg Lars-Erik. Fostran och utbildning i samhälle. En utbildningssociologisk betraktelse. Pris 30 mk.

5/1993 Östern Anna-Lena. Pedagogiskt drama - en didaktisk handledning. Pris 30 mk. Slutsåld.

6/1993 Wigell-Kevin Ringa-May. Idrottens sociala fält. Pris 30 mk.

7/1994 Burman Lars. Planering och utvärdering i matematikundervisningen. Pris 30 mk.

8/1994 Palmberg Irmeli. Botanikens grunder. Pris 40 mk.

9/1994 Palmberg Irmeli. Uteundervisning i vinter- och vårbiologi. Pris 30 mk.

10/1995 Nyberg Rainer. Att skriva avhandling. Guide för pro gradu skribenter i pedagogik. Pris 25 mk. Slutsåld.

11/1995 Österberg Frey, Österberg Leif, Vidberg Henrik, Rudnäs Per-Erik, Mitts Harry, Finne Lena, Dahlbacka Jarl, Burman Lars, Björkqvist Eivor, Björkqvist Ole, Axell May-Gret. Verklig matematik. Pris 33 mk.

12/1996 Lithén Hans-Olof. Ornitologi för grundskolan. Pris 35 mk.

13/1996 Burman Lars. Individuell problemlösning i klassen. Matematikproblem för systematisk övning av problemlösning i högstadiet. Pris 38 mk.

14/1997 Ria Heilä-Ylikallio & Anna-Lena Östern. Storyline och drama som analysredskap vid arbete med Yvonne Hoffmans bok De fyra portarna. En didaktisk handledning. Pris 30 mk.

15/1997 Kristina Stenros & Berit Kurtén-Finnäs. Laborationer i miljökunskap. Pris 30 mk.

16/1997 E.A. Gamini Fonseka. Companion to Drama. Pris 35 mk.

Reports (blue series)

1/1994 Lars-Erik Malmberg. Future-orientation of Finnish Students. Price FIM 30.

2/1997 Mia Porko. Craft Education in the Cultural Struggle Part V. Students' conceptions of sloyd in the comprehensive school. An attempt to apply the phenomenographic method in research on sloyd education. Price FIM 25.

Publications (green series)

1/1996 Lars-Erik Malmberg (Ed.). Initiation of a Teacher Education Project in Tanzania (TEPT). Price FIM 25.

ISBN 952-12-0104-5
ISSN 1236-0872

Available from:
Faculty of Education
Åbo Akademi University
PB 311,
65 101 Vasa, Finland.
Phone: +358-(0)6-3247111
Fax: +358-(0)6-3247302

Blue series: Reports from the Faculty of Education
Green series: Publications from the Faculty of Education

107

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC

CE 077740

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title:	Craft Education in the Cultural Struggle. Part VII. Cuban Sloyd: History and Educational Research on Developing Creativity. Four articles
Author(s):	Lázaro Moreno Herrera
Corporate Source:	Åbo Akademi University, Faculty of Education, Department of Teacher Education
Publication Date:	1997

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☐

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☒

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Claes-Göran Wenestam	Printed Name/Position/Title: Claes-Göran Wenestam, Prof.
Organization/Address: Åbo Akademi University P.O.Box 311, 65101 Vasa Finland	Telephone: +358 6 3247111 Fax: +358 6 3247302 E-Mail Address: cwenestam@abo.fi Date: March 9-99

(over)